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Shopping Towns USA

The Planning of Shopping Centers

by Victor Gruen
and Larry Smith

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Shopping Towns USA

The Planning of Shopping Centers

INTRODUCTION

The shopping center is one of the few new building types created in our time. It also represents one of the rare instances in which a number of individual business enterprises, in banding together, are ready to submit to certain over-all rules in order to further their common welfare.

Because shopping centers represent groupings of structures and because of the underlying cooperative spirit involved, the need for environmental planning for this building type is obvious. Where this need has been fully understood shopping centers have taken on the characteristics of urban organisms serving a multitude of human needs and activities, thus justifying the designation: SHOPPING TOWNS.

The subtitle of this book indicates that it is concerned with PLANNING. For purposes of this book the term planning is used in the widest sense. Discussion is not limited to physical planning alone, but includes the economic, financial, legal, engineering, sociological, traffic, and merchandising aspects of planning as they apply to shopping center problems.

The authors of this book are an architect and an economist. In most major planning projects the professions of architecture and economics play an important role and carry a heavy burden of responsibility. This is especially true in the case of shopping center planning where economic success is the paramount aim, achievable only by thoroughly fusing physical and economic planning.

The authors have cooperated for nearly ten years on a number of shopping center and urban planning projects. Because of the difference of approach inherent in the character of their professions, such cooperation has often involved lively arguments. Sometimes the battle of wits between the economist and the architect resulted in the creation of an entirely new concept superior in many respects to the one which each of them had in mind at the outset.

In collaborating on this book the authors had to resolve such differences with regard to the many questions raised in nearly every chapter. They have succeeded in arriving at answers satisfactory to both of them and thus at a text that reflects the common thinking of an architect and an economist. It is the sincere hope of the authors that through their collaboration they have succeeded in writing a useful guide, not just for good theoretical planning of shopping centers, but for practical, feasible planning in the framework of economic realities.

The scope of a book on shopping centers is so wide and the possible approaches to this theme are so many, that it was necessary to set certain limitations and to define the direction our writing was to take. It may be well at this point to make clear what this book is not intended to achieve.

Our aim is not to furnish a set of shopping center recipes, nor to give instructions, formulae, or design patterns that can be automatically followed by everyone. We seek rather to explore the general directions from which the whole subject can be approached and to furnish a basis for further discussions and development.

This book does not attempt to be a history of shopping

Country Club Plaza Shopping Center, Kansas City, Missouri. This pace-setting development located shopping facilities away from the busy highway, provided offsite parking, architectural unity, and sign control.
Architect: E. W. Tanner

The Farmer's Market, Los Angeles, California. An early cluster-type development, the building core provides lively pedestrian areas, outside eating facilities, and is surrounded by parking areas.

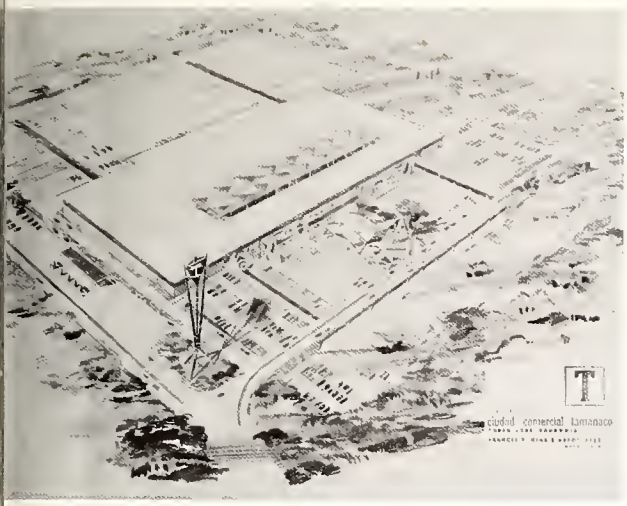
center development. The authors do not take the detached view of the historian. This is an aimful book and its aim is to further the understanding and use of good planning principles. We have not attempted to produce a picture book. Pictorial material is used for the purpose of illustrating points which have been raised in the discussion.

Statements made in this book are applicable, generally, to all types of shopping centers regardless of size or character. However, since the importance of applying sound planning principles usually increases as the size and complexity of a center increases, we often refer to the regional shopping center in illustrating a point. It is the very large center in which planning and design characteristics appear in their strongest and purest form. Nevertheless, even where points have been made only with reference to regional shopping centers, they are still, with some modifications, applicable to smaller types.

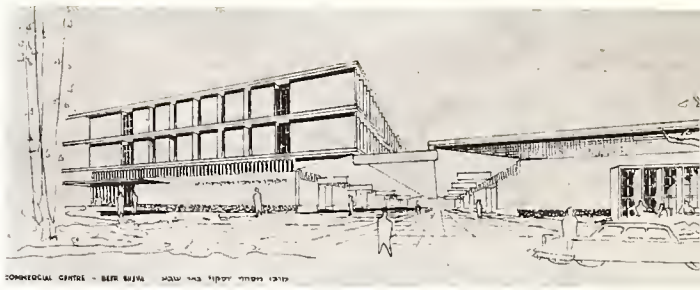
We have limited ourselves to a discussion of shopping centers in the United States and deal in the main with centers constructed during the past ten years. However, we are fully aware of the significant contributions toward the planning of shopping facilities which were made earlier

Pedestrian Mall in the Lijnbaan Shopping Center, Rotterdam, Holland.
Architects: J. H. van den Broek, J. B. Bakema
Photograph: L. V. van Oudgaarden

Free-standing display case, Lijnbaan Shopping Center, Rotterdam, Holland.
Architects: J. H. van den Broek, J. B. Bakema
Photograph: L. V. van Oudgaarden



Projected South American Shopping Center, Ciudad Comercial Tamanaco, Caracas, Venezuela.
Architects: Tomás José Sanabria, Francis X. Giná and Associates



Commercial Center projected for Beersheba, capital of the Negev, Israel.
Architects: L. Cohn and Y. Lavie

and which are being made today in shopping centers in other parts of the world. Today's shopping center planners owe a great debt to developments like the Country Club Plaza in Kansas City, Missouri, constructed in 1925 as part of a well planned community of over eight thousand homes. They also have profited from study of other village-type shopping facilities which followed the prototype of the Country Club Plaza district, amongst them Westwood Village in Los Angeles. One of the most significant developments of early years, we feel, is the Farmer's Market in Los Angeles. The authors regret that the framework of this book does not permit us to discuss the development of shopping centers in other countries. Many such centers have been built in Canada and Latin America, and they generally follow design principles arrived at in the U.S.A. Plans for shopping centers are under way in Australia, many South American countries, and Israel. Of special interest are the Lijnbaan Center in the reconstructed city core of Rotterdam, the shopping centers in the new satellite towns of Sweden, especially in Vaellingby, and in the new towns in England.

The book is organized in three parts. Part I deals with

Shopping Center of the new town of Vaellingby, near Stockholm, Sweden.
Photograph: Refot, Courtesy of the Swedish Consul General, New York

Town Center of the new town of Harlow, near London, England.
Architect: Fred Gibberd
Photograph: Copyright Harlow Development Corporation

the "prerequisites." It attempts to enumerate and qualify the conditions which must be present as a basis for the planning effort. Whenever the quality of such prerequisites is extremely poor, even the best planning efforts lead to undesirable results. But when the quality of the prerequisites is optimum, even comparatively poor planning efforts may result in an economically successful shopping center. However, experience has shown that in the overwhelming majority of cases there is, as far as prerequisities are concerned, neither black nor white. There is a large "gray" area where basic conditions exist that are advantageous in some respects and disadvantageous in others; here the planning effort plays a decisive role. Planning, the main theme of this book, is discussed in Part II.

Part III deals with some special activities which occur in the operation of shopping centers, but only insofar as they form a direct extension of the planning effort.

The division of the parts into chapters is, in some cases, arbitrary. Very often we found ourselves confronted with a situation where, because of the intimate tie-in which exists between all planning activities, overlapping and duplication could not be avoided. We therefore have merely touched on specific problems in certain chapters and referred the reader to other chapters in which a closer look is taken at the problem in question. We mention these difficulties not as an apology but because our problems in this respect are effective proof that closest integration must prevail at all times between the various facets of planning procedure.

The broad, all-inclusive approach to planning which we have chosen for this book brings with it, of course, the disadvantage that many aspects could not be discussed with the thoroughness they may deserve. However, we decided on this approach because of our deep conviction that the most important contribution this book could make would be to promote understanding among all the interests concerned in the creation of a successful shopping center. Over-all understanding, we feel, is necessary for architects, planners, civil, structural and mechanical engineers, economists, developers, real estate owners, shopping center operators, department store and chain store organizations, super-market operators, owners of stores dealing in all types of merchandise, public officials, building and planning departments, zoning boards, traffic consultants, landscape architects, insurance companies, mortgage institutions, graphic designers, sculptors and artists, store designers and lawyers.

The authors have found that although a great amount of specialized knowledge and experience is necessary in each field of endeavor, there is not enough awareness of the processes, methods and problems that must be worked out by others engaged in allied activities. This results in a lack of understanding from which springs mistrust and suspicion, poor coordination, and ultimately a general inability to cooperate successfully. We therefore felt that what is needed most for the achievement of better over-all planning is recognition of the many forces that shape a shopping center project and of the role and importance of each participant in the planning process.

Specialization is one of the natural consequences as well as one of the curses of our complex society and our advanced technology. Unless we manage to counteract specialization by disseminating general information about our common problems we shall drift hopelessly apart and destroy the operational basis from which all work must be undertaken in order to be fruitful. The ideal of Greek education in antiquity was to teach every man something about everything, and everything about something. In this spirit it seems to us essential that each contributor should know something about the entire over-all problem as well as have a thorough knowledge in his own field.

Planning is a unifying activity. It requires the democratic virtue of seeing the other fellow's point of view and making allowances for his needs even though you may be personally attached to other concepts. Planning is not an activity reserved for a special profession. It entails an intelligent long-range approach to any problem, implying cooperation, imagination and foresight. Thus, the mission of this book is to introduce each planning participant to the requirements, needs, thought processes, methodology, and aims of all the others.

Inasmuch as this book deals with "planning" our observations and discussions are restricted to the "controlled" or "planned" shopping center. We have, of course, expressed our personal views concerning the philosophical foundation of planning, and the direction that planning and design procedures should, in our opinion, take. Thus, the views expressed are necessarily subjective. We also feel strongly that since the shopping center as a building type is still in its infancy, all thoughts expressed concerning its planning are subject to constant change.

The authors owe a great debt to the many who, by sharing their experience, have contributed immeasurably to this book. By listing their names on the preceding pages of acknowledgments, we wish to express our deep appreciation for their cooperation.

VICTOR GRUEN
LARRY SMITH

New York, 1959

PROLOGUE

Historical Background

The Growth of Suburbia

The Role of Planning

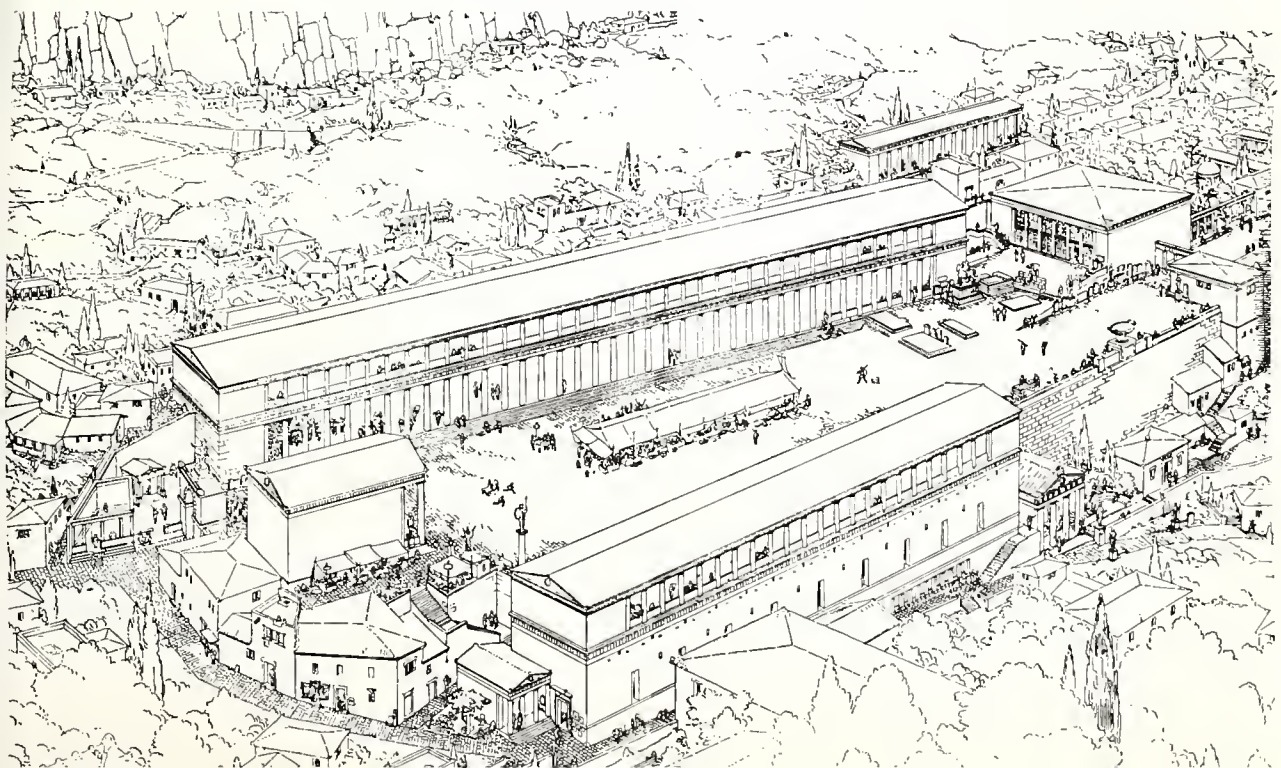
PROLOGUE

Buying and selling is as old as mankind. Prehistoric man exchanged the deer he had slain for a necklace of pretty shells. The modern housewife acquires a package of frozen food in exchange for some round pieces of metal. Gratification of needs and desires motivates both transactions. Only the conditions under which they take place have changed.

A condition of most important consequence, of course, was the introduction of the middleman—the merchant—who turned barter into commerce. He carried the work produced by others from place to place, established trade routes and trading posts, founded country stores and merchant states. Wherever he settled he became an integral, invigorating part of urban life.

In the Greece of antiquity the merchant spread his wares under the colonnades of the Stoa, a building especially designated for his activity. The Stoa was as important in the Agora, or city square, as the Bouleuterion where the

The Agora of Assos.
Drawing: Courtesy of the New York Public Library



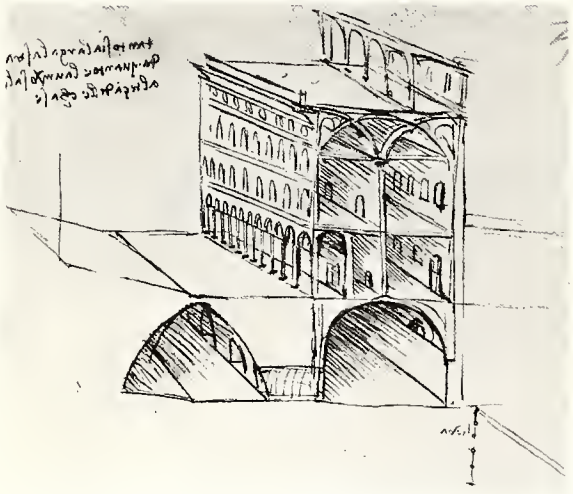
Outdoor Market Place in the Triangular Forum, Rome, circa 100 B.C.
Illustration: Courtesy of the Bettmann Archive

political representatives met, or the Ecclesiasterion, designed for public meetings. The Temple was nearby. Citizens strolling in the square discussed the topics of the day, transacted their business, did their marketing, while philosophers, poets, and entertainers argued, recited and performed. Court trials were held there. Banquets were spread. The Agora was the center of city life, and in this colorful, lively, dynamic environment commerce had its share.

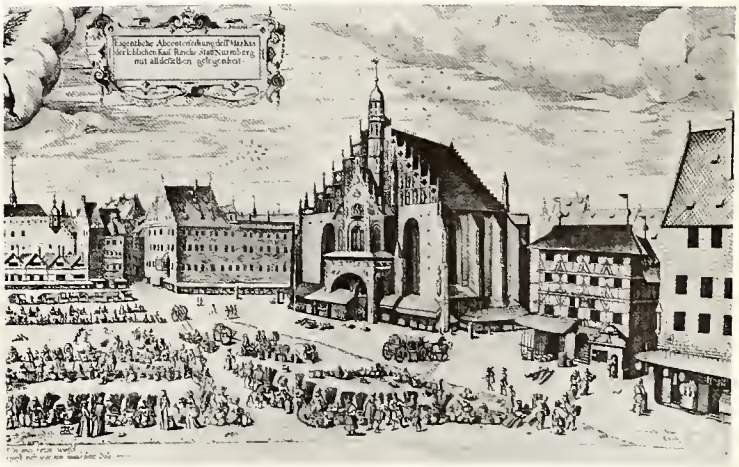
This integration of human activities was a universal pattern. Its existence was guaranteed in ancient Rome where wheeled traffic was banished from the city's forum when vehicles threatened to crowd out the humans.

The medieval city market square was the city's center, not only geographically but socially and commercially, religiously and culturally. The City Hall and Guild Halls were placed there. The Cathedral, the merchants' and craftsmen's stalls and stores surrounded it. The open center area became in turn the market place, the fair ground and the entertainment center for the citizenry.

That genius of the Renaissance, Leonardo da Vinci, recognized the threat to human values of life when they become isolated. He designed a City Center for the convenience and pleasure of the people, confining wheeled vehicles to an underground road.

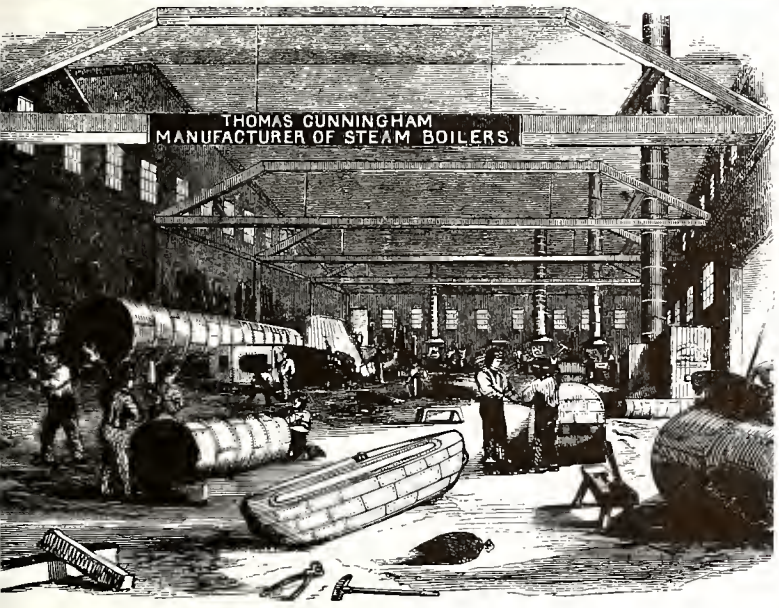


This perspective sketch by Leonardo da Vinci shows his advanced ideas: the street surface reserved for shopping pedestrians; underground passages for vehicular traffic and servicing.



Medieval market place, Nuremberg, Germany.
Illustration: Courtesy of the Metropolitan Opera Guild

Engraving of colonial court square, Springfield, Massachusetts.
Illustration: Courtesy of Barber's Historical Collection



An early expression of the Industrial Revolution (advertisement for manufacturer of steam boilers, around 1850).

Below
Market place in New York's East Side, about 1900.
Photograph: Courtesy of the New York Public Library

Our own New England and Midwest towns are witness to the basic town square concept which our forefathers brought with them from Europe. It persisted here well into the nineteenth century.

The advent of the Industrial Revolution radically changed the organization and character of cities. Thousands of factories were built in the midst of towns and cities. The city grew into a crazy quilt of packed humanity. The industrial slum became the new pattern of the city.

Life in the city soon became intolerable and those who could afford it led the march to the suburbs. The exodus increased its tempo with the advent of the interurban, elevated and subway trains and became a rout with the emergence of the automobile.

The automobile was the means by which the last vestige of community coherence was destroyed. So long as sub-

Mechanized traffic congests urban streets.

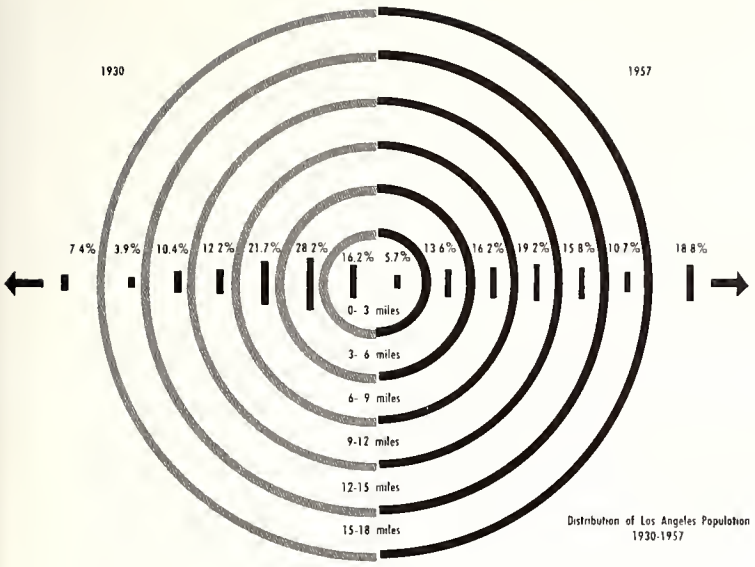
urban dwellers traveled in vehicles that ran on tracks, new communities had a central point—the railway stop—to build around. As the cities stretched out along the tentacles of railroad lines, shops, churches, and community buildings sprang up around the railroad station; the size of residential areas was automatically controlled by the walking distance from the station. Such subcenters are still clearly recognizable in the Greater London Area.

When the automobile emerged as a means of private mass transportation, the final urban explosion took place. Automobiles, free of steel rails or overhead wires, could move at will in every direction. They provided complete freedom of movement to the individual driver and made him independent of public transportation. So, with the automobile came a dispersal of population that followed no pattern whatever.

To accommodate the flood of humans seeking escape from the intolerable conditions of the city, mass housing builders tore up the ground, chopped down the trees, and removed swiftly and cynically every vestige of what the people had come to find. Modern suburbia was born, in which there were neither the values of a rural community nor those of an urban environment.

But people must live somewhere and suburbia grew. According to a report of the United States Census Bureau, suburbs grew seven times as fast as central cities in the

Modern suburbia is born. Photograph: Thomas Airviews



Distribution of population, Los Angeles, 1930 and 1957. Note growing dispersion of population.

years 1950 to 1954. The population of metropolitan areas in 1950 was 83,796,000; 95,304,000, in 1954. Within incorporated city areas an increase of 3.8 percent occurred; 27.8 percent in suburban communities of the metropolitan area. In 1957 a population census was taken in New York City in an attempt to obtain additional state aid by proving increased population. To the great surprise of city government it was found that the combined total population of the five boroughs had decreased from 7,891,957 in 1950 to 7,795,417—or 1.2 percent—at a time when the population of the Greater Metropolitan Area was increasing dramatically.

As the spreading continued with increasing speed, distances between places of residence and the central city grew by leaps and bounds.

In spite of this, public transportation faced the threat of annihilation. The inroads that private automobile traffic had made on public transportation is indicated by figures of a study made by the Westchester County Association. It showed that despite a population increase during the years 1949 to 1954 of 15.5 percent, the number of railroad commuters decreased during the same period by 16.3 percent.

Throughout the United States, the growth was so fast and frenzied that purely practical matters: construction of roads, highways, drainage and sewage, power and gas lines lagged years behind; but any serious attempt at adequate planning of properly situated schools, shopping facilities, community centers and churches was nonexistent. Row upon row of identical houses set in an empty countryside proved to be less than the Heaven its settlers had bargained for. Suburbia had become an arid land inhabited during the day almost entirely by women and children and strictly compartmentalized by family income, social, religious, and racial background.

A psychiatrist of the United States Department of Health, Leonard J. Duhl, believes that this matriarchal pattern of suburbia sets up mental health hazards. Labeling it a "Feminine World," he describes it as a place where people are keeping up with the Joneses, where conformity is considered a necessity and where children have only limited experiences and are not exposed to broader environmental influences.

Critics of City Planning are equally concerned. Christopher Tunnard and Henry Hope Reed, in their book *American Skyline*, have this to say about suburbia:

> **How different this is from our earlier American tradition which allowed people of all classes to mingle together as they still do in communities where people live as well as work. Something of this mixture is healthier for democracy which will surely suffer if residential suburbs continue to refuse public housing projects, business firms, industry and rest camps. Without these they will remain smug, lacklustre backwaters.**

Many others, trained to apprehend the private and public dangers inherent in our unplanned suburban growth, are increasingly concerned. Charles Abrams, Chairman of the New York State Commission Against Discrimination, points out that: "The suburbs and their quest for status are shaping the American personality of the future as the

Stores line both sides of suburban streets.
Photograph: Gordon Sommers

Hitching posts of yesterday and today.
Photographs: Gordon Sommers

frontier once shaped the American personality of the past."

Since suburbia is undoubtedly having a serious effect on the personality of our entire urban life, it is natural that its influence should be felt by the segment of human activity that is of primary concern to us here: the marketing of goods for the gratification of human needs and desires. In this amorphous conglomeration—suburbia—the merchant has had difficulty in finding a logical way to integrate his activities with the local scene.

Stores, which followed their customers into the suburbs, were no longer provided with obvious predetermined locations such as near railway stations. For the customer no longer emerged at defined points; he and his automobile were everywhere.

Under these circumstances the best bet seemed to be store locations on highways over which shoppers would have to travel on their way back and forth to the city. As the number of highway stores increased, more people stopped their cars along the curb and parking space became available only for a cash premium—a new type of hitching post, the parking meter, had made its appearance. Because the shortage and cost of curb parking tended to slow down sales, merchants arranged for off-street car storage areas, at first behind and later on in front of their stores.

Business grew and so did automobile traffic. Consequently, serious traffic congestion appeared on the highways, so serious that drivers began to avoid them by using alternate routes. When these roads inevitably attracted new stores and new congestion, super highways and freeways were constructed at tremendous cost in order to promote an easy flow of traffic.

In the meantime, residential areas surrounding congested traffic carriers, or facing the unsightly service facilities of stores, became undesirable. The original owners and tenants moved out and only those who could not afford or were not permitted to live in the more desirable places moved in. Soon stores found themselves surrounded by residential areas of reduced buying power.

As customers were siphoned off from the roads along which merchants had settled, partly by neighborhood deterioration, partly by the use of new freeways, a wild scramble for new locations started. Merchandising outlets were built in freshly created suburban areas still farther removed. Here, within a few years, merchants encountered

a repetition of the undesirable conditions from which they had tried to escape. The need for farsighted, comprehensive planning finally became urgently apparent.

Planning is needed not only to bring order, stability, and meaning to chaotic suburbia; it is necessary in order to establish a strong logical framework within which individual merchandising enterprises can flourish and provide crystallization points for suburbia's community life.

Some members of the business community have, in the past, resisted the concept of comprehensive planning. They regarded it as interference with individual initiative and free enterprise. It has been labeled by some as "undemocratic." But planning, properly understood and exercised, does not result in fixed patterns, in authoritarianism, in regimentation, or in the suppression of individualism.

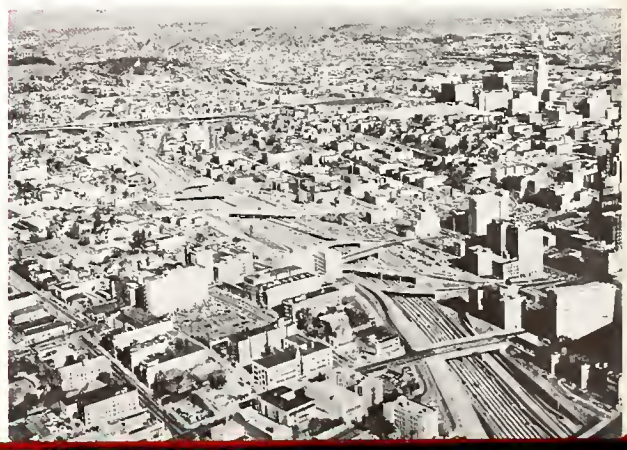
No democratic society can flourish without law and order which, when applied to the physical environment, necessitates planning. In a complex and highly mechanized society environmental planning safeguards the basic human rights. By providing the best conditions for physical and mental health, it protects *life*. By establishing barriers against anarchy and the infringements of hostile natural and man-made forces, it protects *liberty*. By the creation of a humane environment it invites and encourages the pursuit of *happiness*.

When environmental planning is applied to the designing of new commercial facilities, many conditions must be analyzed, criteria weighed, requirements met, and problems solved. These all involve in various ways and to varying degrees the needs and desires of the shopper. It is deeply significant that the term is "shopping center," not "selling center." This indicates clearly that the wishes and desires of the shopper take priority over those of the seller. (An earlier term, "parking center," failed to catch on.)

The basic need of the suburban shopper is for a conveniently accessible, amply stocked shopping area with plentiful and free parking. This is the purely practical need for which the shopping center was originally conceived and which many centers most adequately fulfill. Good planning, however, will create additional attractions for shoppers by meeting other needs which are inherent in the psychological climate peculiar to suburbia. By affording opportunities for social life and recreation in a protected pedestrian environment, by incorporating civic and

Traffic congestion appears on suburban highways.
Photograph: Ed Clark, ©1955 Time Inc.

Unsightly service facilities.
Photograph: Gordon Sommers



Superhighways, a costly answer to road congestion.
Photograph: Los Angeles Chamber of Commerce

Pedestrian life in the Garden Court of Eastland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Alexandre Georges

educational facilities, shopping centers can fill an existing void. They can provide the needed place and opportunity for participation in modern community life that the ancient Greek Agora, the Medieval Market Place and our own Town Squares provided in the past.

That the shopping center can fulfill this perhaps subconscious but nonetheless urgent need of suburbanites for the amenities of urban living, is convincingly proved in a large number of centers. In such centers, pedestrian areas are filled with teeming life not only during normal shopping hours, but on Sundays and holidays when people windowshop, promenade, relax in the garden courts, view exhibits and patronize the restaurants.

All age groups are provided for. Auditoriums are booked to capacity. Meeting rooms are busy with civic and cultural affairs. Dance schools, music schools, and ice skating rinks attract teen-agers; amusement centers are popular with children.

Such a planning concept also results in an upgrading of the residential area surrounding the center. It not only protects surrounding communities from blight but actually raises their desirability and consequently their property values.

If the shopping center becomes a place that not only provides suburbanites with their physical living requirements, but simultaneously serves their civic, cultural and social community needs, it will make a most significant contribution to the enrichment of our lives.

Dancing in the streets of Paris.
Photograph: Willy Ronis, Courtesy of the French Government Tourist Office

Dancing in Southdale Center, near Minneapolis.
Architects: Victor Gruen Associates
Photograph: Courtesy Minneapolis Star and Tribune

PART I

THE PREREQUISITES

Planning can be fruitful only if basic economic, physical, and organizational characteristics are present.

PART I–CHAPTER 1

The Shopping Center Developer

It seems natural to start this part of the book by introducing the shopping center developer. Without his ability and his initiative we would have no shopping centers now, nor would any be built in the future.

Who, then, are the shopping center developers? Men who create long range investments and men who have short range objectives; single individuals and large organizations; experienced developers and those who try for the first time.

But there is one aim they all have in common. Relying on their own skill and ingenuity and that of the professionals whom they retain, backed by their financial investment they seek to convert comparatively low priced real estate, often farm land or residentially zoned areas, into extremely valuable real estate assets: namely, shopping centers.

Basically, shopping center developers fall into five categories: merchandisers desirous of developing outlets for their own merchandising aims; professional developers; land developers who reserve locations for commercial purposes within an over-all development; institutional developers; other property owners who wish to develop land they own or propose to acquire.

1) Merchandisers as Developers. The growth of suburbia (see Prologue) forced the department store which traditionally had developed in the central downtown district, to branch out. Today, the department store has the following choice: it may select a limited acreage for a branch location along a suburban highway and build a free-standing department store unit; it may lease space in a shopping center developed by others; or it may develop a center itself with its branch store as a main unit. In many cases department stores have become developers of shopping centers in order to assure adequate locations and properly planned projects for their branch stores.

For much the same reason, supermarket organizations have entered the development field during the past few years. Quite a few chains have organized subsidiary or affiliated corporations, or have entered into working arrangements with independent developers for purposes of acquiring and developing shopping center properties. Such development organizations are often publicly owned through corporate type financing. Their primary purpose is to create the means of expansion for the parent food-store organization.

2) Professional Developers. As shopping centers grew in scope it became apparent that their development presented unique problems which differed substantially from that of other commercial properties. Accumulated experience produced specialists, many of whom broadened their interests into the field of development in two major areas. As developmental agents for department stores or food organizations, they may acquire and develop properties already selected by such merchandising enterprises but which the latter are not eager or able to develop with their own resources for policy reasons, or because of staff or financial limitations. In other cases they seek out new locations themselves and

Southdale Center, near Minneapolis.
Photograph: Warren Reynolds, Infinity, Inc.

acquire sites with the purpose of interesting major retailers in participating either as co-investors and co-developers or as tenants.

3) Land Developers. These are organizations primarily active in the residential field. They often set aside, as shopping center sites, strategic locations within large housing projects or in completely new, planned communities. They do so partly as a means of more effectively marketing their residential units and partly for investment purposes. Often they are forced into shopping center development, as in cases where the Federal Housing Authority requires shopping facilities in large residential projects. Thus, in some cases shopping centers become merely an incidental matter; in other cases, however, they become important developments in their own right.

4) Institutions as Developers. Two major groups of institutions have entered the shopping center field. The first one is represented by the large insurance companies. These organizations, the primary source of financing for most shopping center developments and therefore deeply involved in their construction and planning, gained rich experience from continued contact with developers. With this experience as a basis, certain of these institutions have undertaken the development of shopping centers themselves.

The second group—universities and colleges—have planned the development of shopping centers, usually of intermediate size, on university-owned land. Stanford University, Antioch College, the University of Wisconsin and the University of British Columbia are examples of such institutional developers. Development by universities is mostly based on the coincidence that land which they own or control happens to be suitable for shopping center development.

5) Other Property Owners. These are representative of the large group of investors who have confidence in real estate as a medium of investment. With a successful experience in their first project, these developers may become professionals and develop a series of projects.

Motivations and therefore methods of development differ among these five categories of developers. The differences are based mainly on variations in investment concept and on attitudes taken toward the continued ownership of the completed shopping center.

Every developer automatically becomes an owner. At the outset he becomes the owner of land and of a planning concept. Later he becomes the owner of leases and of loan commitments. As work progresses he becomes the owner of plans and specifications; when leases are drawn, he becomes the owner of a "package" consisting of land and leases, plans, and financing commitments. When physical construction is completed, the developer becomes a full-fledged shopping center owner. Once the shopping center is opened he is an owner and operator. His preconceived intention as to how long he wishes to be committed to an ownership position will color his attitude in regard to the planning process. Subject to tax considerations and the availability of a buyer, he may wish to realize a short-term gain at an early moment, possibly when preliminary plans are completed; or he may prefer to realize a capital gain when physical construction has been accomplished; or his interest may be the long-range one of fully developing the inherent potentials by operation over many years, including enlargement of the center and improvement of surrounding areas. His objective will obviously influence the quality of his shopping center planning.

"Pride of ownership" may be largely absent in the developer who intends to give up ownership at the earliest practical moment, but strong in the developer who intends to retain ownership indefinitely—whether individual, corporation or institution. The first category of owners, the merchandiser, usually has long-range interest because the success of his own merchandising enterprise, department store or supermarket, depends on the sustained quality of operation of the entire shopping center. The fourth category, the institution, also has long-range interests because it is characteristically engaged in long-term investments. In two other categories (the professional developer and the land developer) short-range interest may more frequently be the predominant motivation.

Whether intended as a short-term or long-range investment, many years may elapse between the developer's first conception of a shopping center and its physical reality, since all sorts of time-consuming activities are necessary (see Part II, Chapter 2). Depending on the size of the center and the complexity of the problems with which the development may be faced, the incubation time of a shopping center may be anywhere from one and one-half to six years. Thus, it becomes apparent that whatever the motivation of the developer, he must be prepared for a protracted and sustained effort.

In order to pursue this effort continuously and gainfully the developer must have an effective organization. In some cases, as in those of the professional developer or the land developer, such an organization may already be partly or completely in existence. In others it may have to be newly formed. The developer's organization, for regional centers at least, should be headed by a full-time general manager. He will coordinate the work of all other members of the developer's organization and of the professionals retained. These, in most cases, will include an economist, architect, corporate lawyer, lease lawyer, tax lawyer, public relations firm, engineer, contractor, etc. The general manager will represent the developer as a member of the planning team (see Part II, Chapter 1). For larger projects he will be assisted by a leasing manager and his staff. For smaller projects he may undertake the leasing himself.

It is essential that leasing be controlled through the

developer's organization. Methods used in leasing have a substantial effect on the income-generating capacity, the customer satisfaction and the sustained position of the shopping center. This does not exclude, by any means, the possibility of employing leasing brokers. Their function in a shopping center is that of establishing contact with various prospective tenants, especially chain store organizations, with whom the broker can negotiate effectively because of established connections or special skills. The attitude toward leasing as exemplified by the leasing manager as part of the developer's organization may be significantly different from that of the leasing broker. The leasing manager's aim is to achieve a leasing program designed to be in the best interest of a successful development, which may at times involve the refusal of lease offers for vacant space. (See Part I, Chapter 5, "The Tenants"; Part II, Chapter 7, "Planning for Merchandising," and Chapter 10, "Leasing the Shopping Center.") Depending on the size of the shopping center and on the type of developer, the developer's organization might also include a legal and tax law department, accounting and financial department, and a public relations department. Where these are not members of the developer's organization, independent professionals will often be retained.

The developer's financial ability has a great impact on the successful conclusion of a project. It must be sufficiently strong to make it possible for him to rely on his own means during the periods of planning and construction before income or financing is available. He must be able to meet the various expenses connected with zoning, economic studies, traffic studies and planning. His financial resources should enable him to complete the project with favorable financing from a suitable mortgagee. His financial ability may influence major tenants like department stores in their decision to join the project. Equity requirements in today's financing market are often considerable (see Part I, Chapter 6, "Financing").

We have now met the star of the shopping center planning team—the developer. What should his attitude toward planning be? All types of developers, whether they wish to be short-term or long-term owners, should be vitally interested in good planning. Planning will achieve better financing conditions for them because institutions making long-term loans are vitally interested in the quality of mortgaged property. (They regard themselves, rightly, as potential long-range owners.) Good planning helps in acquiring tenants and can result in better leasing conditions. Professional shopping center developers who create shopping centers successfully over a period of years will be in a better position to repeat a good performance.

PART I–CHAPTER 2

The Location

An extremely important prerequisite for successful shopping center development is proper location. For the purposes of our discussion, we use the term "location" in a purely geographical sense. It indicates the general area in which to select a shopping center site in order to afford the best opportunity for successful functioning and operation of a center. In discussing location we will omit consideration of the physical characteristics of land. These will be dealt with in Part I, Chapter 3.

The proper location, geographically, is determined by the economic considerations pertaining to it. In judging two parcels of land which may be equal in all other respects, their location and the economic attributes that flow from location must be given careful consideration.

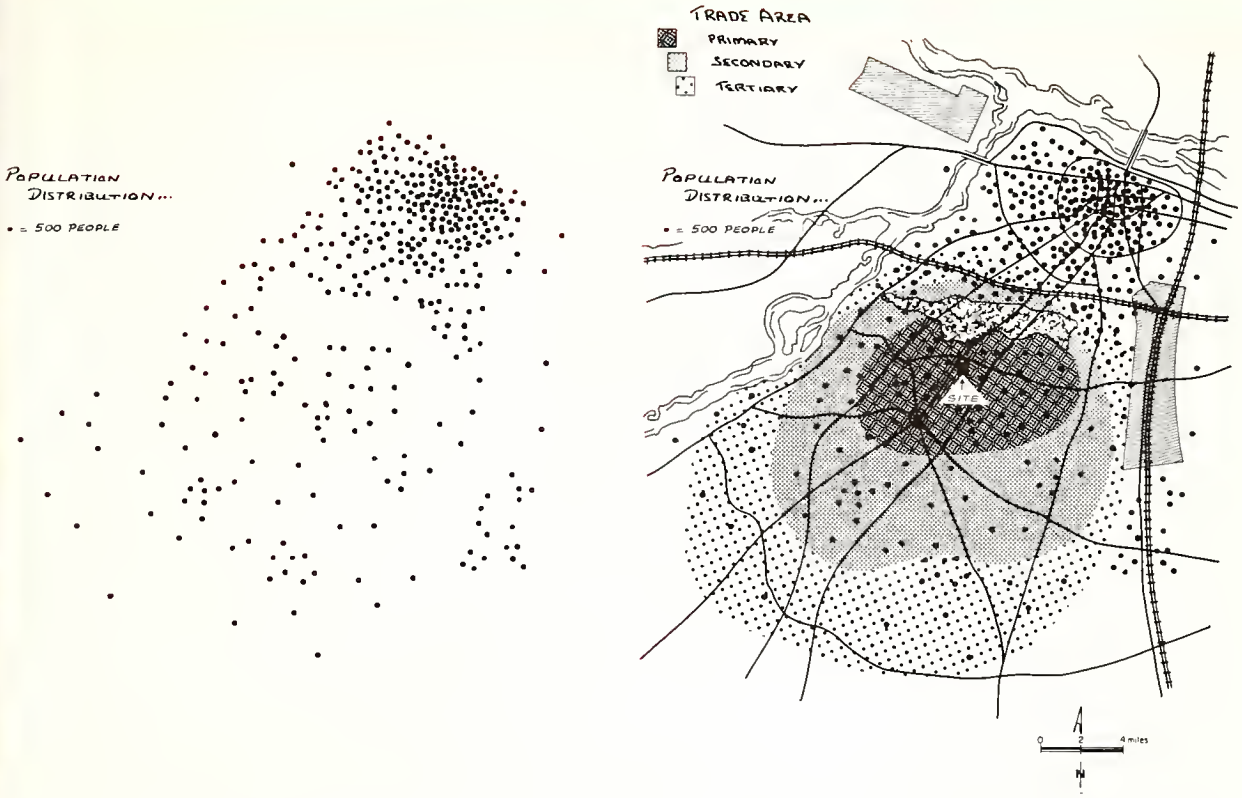
In order to avoid embarking on a shopping center venture blindly, the merits of location must always be judged whether land has already been acquired, or whether a suitable site is to be sought. If the site has already been acquired, the work of the economist would be directed toward the study of the economic characteristics of that location. The results of his study would serve as a basis for deciding whether or not that particular property should be developed for a shopping center project, and if it should be developed, what its size and character should be.

In other cases, the economist's effort would be directed to the study of a general area with the aim of establishing the most suitable location within which a site should be acquired. This type of over-all study may involve a large area such as the metropolitan area of one of our largest cities. First, the total available economic potential of the area would be analyzed. Then, various segments of the total area would be analyzed in order to arrive at conclusions as to which segment, or segments, appeared to offer the most advantageous potential. Continued analysis would be directed toward finding, within the segment, a specific area most suitable from an economic point of view, and finally, toward finding a more defined location within this area. It is obvious that this procedure of methodical search, unbiased by the ownership or control of a particular piece of land by a developer, is likely to lead to the most satisfactory results. If properly and thoroughly undertaken, it will usually establish the most suitable location for shopping center development.

However, regardless of whether the location study is to be directed toward the establishment of the qualifications of an existing site, or the search for a new one, basic methods to be employed will be very similar. The aim of the economic analysis is to provide detailed economic facts so that it will be possible to ascertain the approximate amount of retail sales volume which might reasonably be attracted to the location if shopping center facilities were to be constructed. Inherent in any economic analysis is the study of the following factors:

Population	Competitive Facilities
Income	Accessibility
Purchasing Power	Other related considerations

Primary among the influences bearing upon location is the question of population. The rapid increase in population which has taken place in the United States since 1940 and the prospect that during the next twenty years this



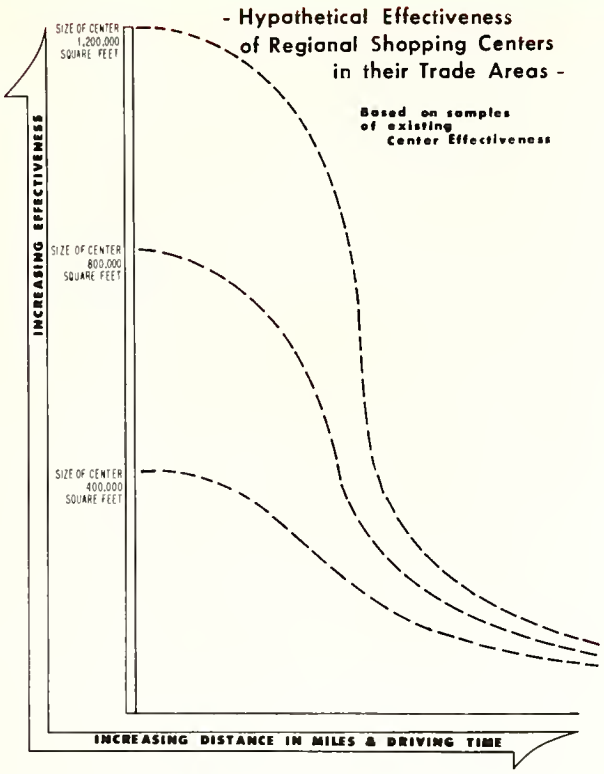
Schematic sketches of a theoretical shopping center location, showing its trade areas, and its surrounding population distribution.

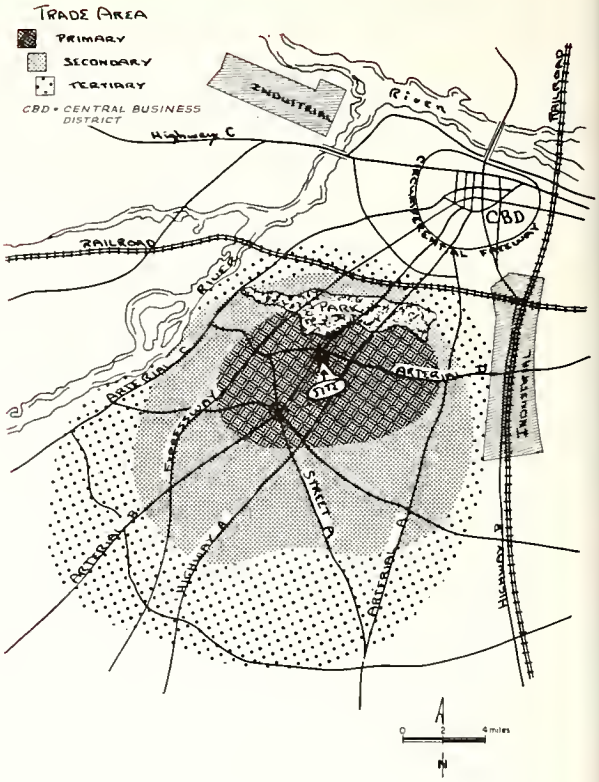
population will increase by 50,000,000 to 75,000,000 persons, presents a challenge and an opportunity to developers, planners, retailers and all who are interested in a healthy development of our communities.

In analyzing a location, attention must be paid not only to the existing population but to prospects for future growth. Growth may be forecast by reference to past growth rates, the trend of population shifts, and the availability of remaining suitable land for residential development. In considering a developed area, where only a minimum amount of suitable land is available for residential development, it would, of course, be fallacious to apply general population growth rates. Population in such areas might remain constant or might even decline.

A shopping center, like any other group of commercial facilities, will draw its patronage largely from an area which can be defined and outlined on a map. The extent of this trade area and the degree to which it can be accurately charted varies with a number of factors, one of which is a knowledge of the probable basic character and major tenancy of the projected shopping center. The term "Trade Area" is normally defined as "that area from which is obtained the major portion of the continuing patronage necessary for steady support of the shopping center." In some cases, a percentage of shopping center patrons originate from areas a considerable distance away from the center, and beyond the normal trade area. This portion is the smallest in the case of a neighborhood center and probably will not exceed 2-5% of the total business. A large regional shopping center, on the other hand, may obtain 15-20% and occasionally even more of its business volume from purchases made by people living outside a normal trade area.

Within the trade area tributary to a shopping center, the strongest influence will be exerted closest to the site. This influence diminishes gradually, and in order to take


- Hypothetical Effectiveness of Regional Shopping Centers in their Trade Areas -
Based on samples of existing Center Effectiveness
INCREASING EFFECTIVENESS
SIZE OF CENTER 1,200,000 SQUARE FEET
SIZE OF CENTER 800,000 SQUARE FEET
SIZE OF CENTER 400,000 SQUARE FEET
INCREASING DISTANCE IN MILES & DRIVING TIME



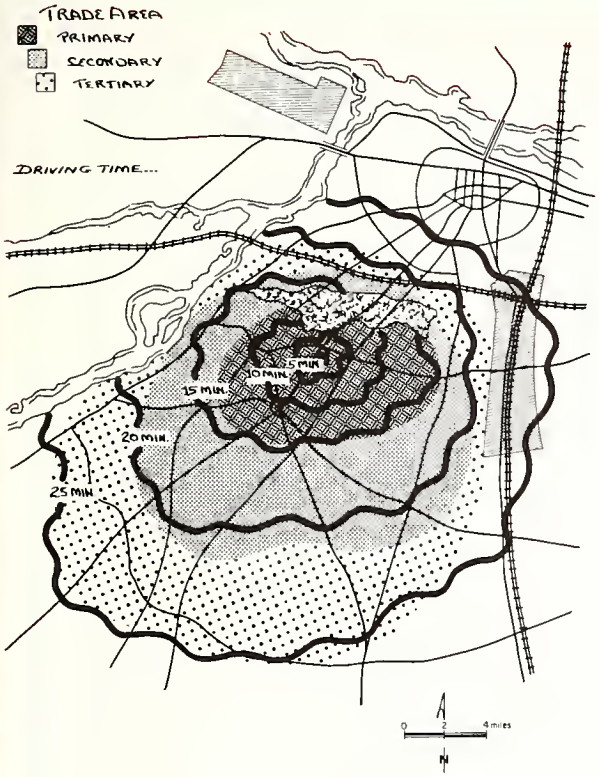
This sketch indicates various types of barriers to accessibility of the location. It also shows features that facilitate accessibility. Both must be weighed in judging the location.

this into account, various zones of influence might be identified and weighed. In the case of neighborhood or intermediate centers, usually only a single zone of influence within its trade area will be established. In analyzing a regional center's location, however, various zones might exist, each one extending its influence to a different degree in relation to the location. The amount of purchasing power available for the specific location must be gauged for these various zones.*

The defining factors used in delineating a trade area vary from center to center. They include, but are not limited to, the size and influence of the proposed retail facilities, planning and design characteristics, travel time to and from the location, the existence of natural or man-made barriers, such as railroads and rivers, which would influence accessibility either in fact or psychologically, the existence and size of competitive facilities, etc. As a result of these factors, the trade areas for various locations will not necessarily assume similar sizes or shapes.

The character, planning and design qualities, size and tenancy of a projected shopping center will also obviously influence the size and shape of the trade area. Even in cases where a site is predetermined, variations in these characteristics will produce vastly different results within the area. This is one reason why simultaneous studies by developer, economist and architect are essential from the outset of any project. It is not possible to arrive at a reliable economic analysis (which must be based on the consideration of the trade area) unless the economist has at his disposal certain information concerning planning and design concepts and

*For purposes of simplification the text refers to only one method of trade area analysis. Others, including methods of consumer research or the application of the Reilly Law of Retail Gravitation to small segments of population, are in use. Even the zones of influence may be determined and analyzed by various methods.



Driving time distances for the theoretical location.

the projected tenancy of a center (see Part II, Chapter 1).

Experience has indicated that the degree of acceptance and popularity one store enjoys within a community as compared to another of a similar type influences the extent of the trade area. Department stores, junior department stores and supermarkets, normally the major tenants, are by no means uniform in their effectiveness in attracting shopping center patronage. Customer loyalty to one store as compared to another, particularly in the case of department stores and supermarkets, will affect the total sales potential and the distribution of sales potential among various tenants. It would be fallacious to assume that sales in a shopping center will be divided proportionately to the size of the stores. The best way to anticipate differentials arising from the selection of one major tenant as compared to another will be the use of a consumer survey to check the relative acceptance proposed major tenants enjoy within a given area.

An important factor influencing the determination of trade area and zones is the time it takes patrons to travel to and from the shopping center location. It has been proven that, all other conditions being equal, customers will travel greater distances to reach a shopping center with outstanding planning characteristics and a greater number of comparison shopping facilities than they will to one with a limited choice of stores and poorer planning and design characteristics. However, there is a definite limit to the attracting power of any shopping center and to the length of time shoppers are willing to spend in traveling to it. A point is reached where the convenience of shorter trips outweighs the attractions of a large center. The critical point at which the maximum effectiveness diminishes, as shown by the accompanying graph, varies less than might be expected in terms of driving distance and driving time for regional shopping centers regardless of size.

Acceptable travel time may be measured with some degree of accuracy and the boundaries of areas lying within the acceptable travel time plotted as illustrated. Generally speaking, it has been found that the very large majority of customers are willing to travel 12-15 minutes, and a maximum of 25 minutes, to reach a regional shopping center. In the case of intermediate shopping centers, it will be possible to draw most customers from an area lying within a 15-minute driving time distance, with the area of greatest effectiveness limited to 7-10 minutes' driving time. Neighborhood shopping centers would normally attract business from an area not more than 5 minutes' driving time distant.

It is important to differentiate between geographic distance and travel time. To illustrate this point, let us assume that a regional shopping center is readily accessible by a limited access expressway. Residents in areas located near the route of the expressway as far as 15 miles from a location could reach the shopping center within about 20 minutes' driving time. However, residents living in areas where access by expressway is not at hand could travel only 7-10 miles in 20 minutes' driving time. In that case, it could be roughly assumed that the trade area would extend 50% farther in one direction than in others, although the frequency of access points and travel conditions adjacent to such access points are also important.

The most reliable method by which conclusions can be drawn concerning the degree to which the boundaries of a trade area depend on travel time, is to undertake actual driving tests. These tests should be made during various times of day, on various days of the week, and at various seasons of the year. The results of such driving time tests can be shown on a map on which points of equal driving time can be connected, and thus zones of equal driving time distances established.

Once the boundaries of the trade area and various zones have been defined, a study of population characteristics within this area can proceed. Valuable for this purpose are the data provided by the Bureau of Census and more recent data that can be obtained from local authorities. With the help of these tools, it is possible to make reasonably

Typical Per Capita Retail Expenditure Pattern

Individual expenditure patterns for trade area residents are calculated by store type from information contained in the 1954 Census of Business for the Department of Labor's 1953 Study of Expenditures by Income Ranges. The following table illustrates a typical per capita expenditure pattern for those types of retail outlets usually found in an integrated shopping center. The percentage distribution of per capita expenditures by store types will vary between the trade areas in accordance with their respective average income levels.

	Primary Trade Area	Secondary Trade Area	Tertiary Trade Area
Food	$ 308	$ 290	$ 280
Eating & Drinking	276	142	90
Department Store	331	188	110
Variety	48	27	20
Apparel	208	127	75
Furniture & Appliances	140	90	75
Hardware	48	40	31
Drugs	44	36	38
Other	162	130	125
TOTAL	$1,565	$1,070	$ 844

Central Business District's Share of Sales in Standard Metropolitan Areas 1948 vs. 1954

	Standard Metropolitan Area Sales 1954 (in thousands)	% of Standard Metropolitan Area Sales in Central Business Districts 1948	1954	% Difference
Manhattan Borough, N. Y.	$15,433,091	16.9	14.2	—16.0
Newark, N. J.		2.2	1.8	—18.2
Brooklyn Borough, N. Y.		2.3	1.7	—26.1
Paterson, N. J.		0.7	0.5	—28.6
Yonkers, N. Y.		0.3	0.2	—33.3
Los Angeles, Calif.	6,903,325	9.8	6.1	—37.8
Long Beach, Calif.		2.0	1.8	—10.0
Pasadena, Calif.		2.1	1.6	—23.8
Chicago, Ill.	6,898,919	14.0	10.4	—25.7
Gary, Ind.		1.3	1.0	—23.1
Detroit, Mich.	4,106,958	15.5	9.9	—36.1
Philadelphia, Pa.	4,060,541	20.7	14.9	—28.0
Camden, N. J.		1.4	1.3	— 7.2
San Francisco, Calif.	2,958,649	17.7	13.9	—21.5
Oakland, Calif.		8.1	6.3	—22.2
Berkeley, Calif.		1.7	1.4	—17.7
Boston, Mass.	2,855,379	20.0	15.2	—24.0
Pittsburgh, Pa.	2,212,049	18.9	13.7	—27.5
St. Louis, Mo.	2,016,650	18.0	12.2	—32.2
Washington, D. C.	1,981,956	28.9	20.8	—28.0
Cleveland, Ohio	1,923,462	24.4	19.6	—19.7
Buffalo, N. Y.	1,330,466	20.2	15.7	—22.3
Houston, Texas	1,194,837	42.9	31.8	—25.9
Milwaukee, Wisc.	1,144,581	21.4	16.6	—22.4
Cincinnati, Ohio	1,119,117	28.8	23.7	—17.7
Dallas, Texas	1,030,850	26.2	16.2	—38.2

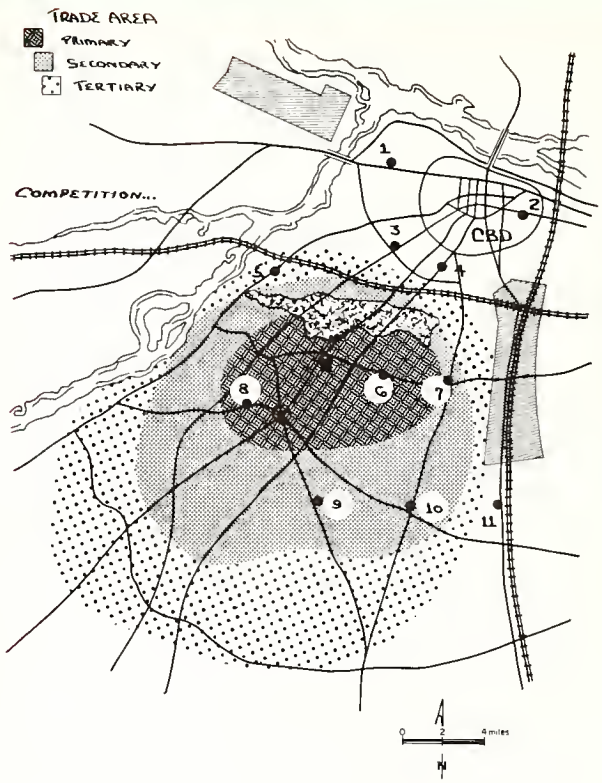
accurate estimates of existing population and projected future population within the trade area.

Data concerning income and purchasing power may also be derived from the 1950 census of population and the census of retail sales undertaken in 1948 and 1954. This data, corrected for certain reporting errors, brought up to date and combined with information secured by observation, serves as a basis for establishing a retail expenditure pattern similar to the one illustrated. Population data and expenditure patterns should be geared to the year in which a projected shopping center is intended to be opened and to years following that date.

In evaluating the potential sales volumes derived from the established trade area, consideration must be given to the strength and effectiveness of other retail shopping facilities with which the center will have to compete. Such consideration must apply both to existing and to proposed retail stores, as presently located or as they might be distributed in the future. The competition that will influence the potential sales volume of a location consists of three separate types: other existing suburban shopping facilities within and beyond the trade area; the central business district which exercises a strong though varying influence on residents throughout the entire metropolitan area; shopping facilities that do not yet exist, but are likely to come into being.

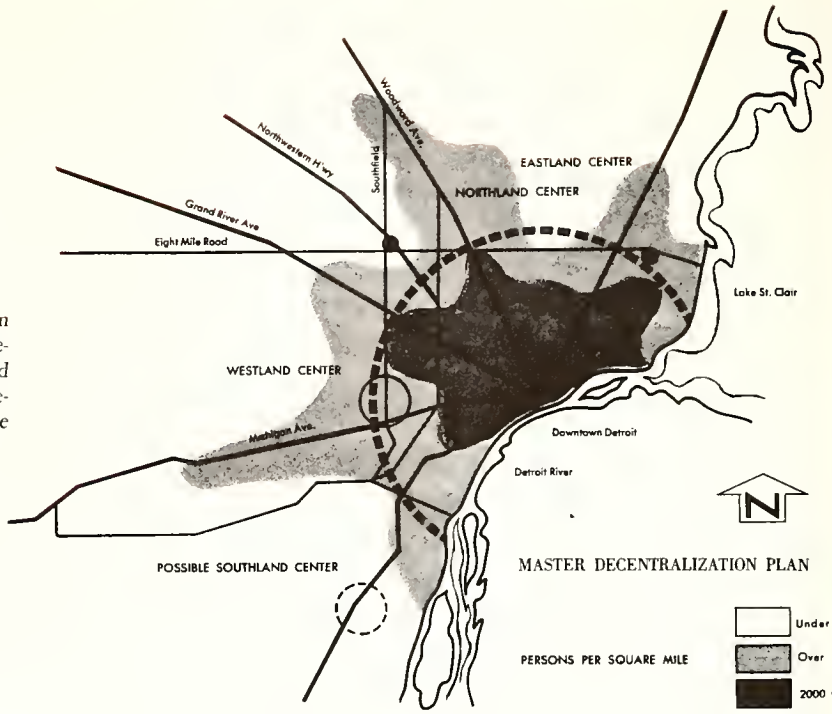
Prior to the appearance of major integrated planned shopping centers, the central business district and a few outlying suburban store concentrations along major highways provided the only complete, or relatively complete, shopping opportunities within our large cities. As downtown stores expanded their operations into suburban areas, the opportunity for choice widened so that now a shopper may decide between shopping downtown or at any number of suburban shopping districts. In this connection, it should be pointed out that up to now, no suburban shopping center has been able fully to duplicate the range and depth of merchandising operations inherent in downtown areas, nor to provide the array of additional business and commercial facilities which a downtown business district provides as a focal point for offices, governmental activities, professional services, community activities and tourist attractions. The total amount of suburban shopping facilities increasingly affects the general distribution of retail sales between the central business district and outlying areas. This distribution must be recognized and taken into consideration in attempting to measure the proportion of patronage that downtown stores will attract out of the total. We are referring to the "downtown share" and the "suburban share" of retail expenditures. In determining these "share" figures, we disregard political boundaries of city limits. The tabulation on page 34 shows to what extent the relationship between downtown share and suburban share has changed in a number of cities from 1948 to 1954.

Of the total of retail sales transactions, a greater proportion takes place outside of the central business district in large metropolitan areas than in smaller ones. It can be expected that the growth of the suburban share will continue as population grows and additional suburban shopping facilities are opened. However, efforts directed toward the revitalization of downtown areas may slow down the suburban growth ratio.



Schematic sketch indicating competition. The letters CBD indicate the central business district; the numbered dots, existing major shopping centers; the unnumbered dots, shopping facilities that might come into being.

Another factor to be considered is the possibility that future competitive facilities will be established within or adjacent to the trade area. Surveys of consumer habits have shown that no one store or group of stores can absorb all the business within a given area, even after allowances have been made for the downtown share and the competition of existing retail facilities. The very fact that within a trade area sufficient sales volume is at hand to warrant the establishment of a new shopping center will spur other retailers to take steps to meet the new competition. It will also encourage outside retailers to enter the area to compete for the unsatisfied sales potential. Therefore, in estimating



Master Decentralization Plan developed in 1950 for the J. L. Hudson Company, Detroit. Two of these centers, Northland and Eastland, have been constructed. No decisions have been made concerning the other two.

the amount of store space for a new location, it becomes necessary to allow for the possible development of additional competition. Established shopping habits also exert their influence on the distribution of the total share of sales potential within the area. This phenomenon might be illustrated by the case of a private residential subdivision located on an island but connected to the mainland by a toll-collecting causeway. The island was without any retail facilities until a new supermarket was established there. Because of the toll, the supermarket expected to obtain a sales volume of approximately 90% of the total food expenditures of the island residents. Operating experience, however, established the fact that despite the existence of this "captive market" the supermarket was never able to attract more than approximately 45% of the food purchases made by the local residents. Many residents obviously remained loyal to stores on the mainland. The conclusion to be drawn from this and many other similar examples is that no one store or group of stores can hope to absorb the total sales volume attributed to the residents of a trade area.

When attempting to measure the influence of future population growth, it must be related to the specific facts of the particular trade area under consideration. In forecasting the population trend for ten or fifteen years, consideration must be given to factors such as existing population density, zoning restrictions, physical or man-made barriers to the development of new residential areas—mountains, waterways, industrial areas, public parks, cemeteries, airports—and other land uses that would forestall residential development.

The composition of the population in the trade area, as far as racial or economic characteristics are concerned, is important in various regions of the country. It is sometimes unreasonable to expect that various ethnic groups will be willing to shop together, especially in areas where strong traditions or prejudices exist. It is also unreasonable to expect that persons of low or middle income groups will patronize a high quality type of shopping center or, conversely, that persons in the highest income groups will shop generally in centers where medium or low priced merchandise is the chief feature.

Though shopping centers are the product of the automobile age and depend to the largest degree on customers arriving by private automobile, the influence of public transportation should not be overlooked. The use of public transportation by shopping center patrons can be encouraged by measures discussed in Part II, Chapters 3 and 6.

Special consideration must be given to existing suburban

development if a shopping center intends to attract an important local department store as its major tenant. The choice of a location for the center will be further influenced, in that case, by the location of other existing branches of the department store in question. Similiar problems exist in the location of other major tenants in the area. It is not likely that chain stores or local stores will close existing branch units, especially if they are comparatively new, in order to become tenants of a new shopping center.

In those cases where department stores or other merchandising enterprises act as developers, the selection of a location will be influenced by their basic long-range planning and management philosophies. Many department stores have embarked on expansion programs, by means of suburban branch stores, to regain business volumes that have been lost to suburban commercial developments. Some department stores plan to ring the central business district with branch locations in suburban areas in order to ensure adequate representation throughout the metropolitan area. For the J. L. Hudson Company in Detroit, for example, a master plan has been developed which has spotted locations approximately ten to eleven miles distant from the downtown business district in various segments of the metropolitan area. In accordance with the locations indicated on the master plan, sites were or are being acquired. Two centers, namely Northland and Eastland, are already in operation. The method chosen by the J. L. Hudson Company is to erect branch stores of considerable size (between 400,000 and 500,000 square feet) within regional shopping centers which, together with the department store, contain approximately 1,000,000 square feet of rental space.

Other department store organizations differ in their approach. Some, for example Carson Pirie Scott & Company, have adopted the philosophy of building a larger number of smaller store units spread in numerous locations throughout the metropolitan area. Another store in the Chicago area, however, Marshall Field & Company, subscribes to the idea of developing large branch stores, such as the one in the Old Orchard Shopping Center and the one in Oak Park.

We note in passing the continual search by aggressive merchants in all lines for new means of providing service to their customers.

J. L. Hudson Company has recently opened a 70,000 square foot branch store of their basement operation in a location not competitive with their major branch locations. Many department stores are considering specialty type branches for specific departments, branches of the basement store, warehouse stores, etc.

Similarly, supermarkets during the last ten years have experimented with the operation of large non-food departments, special services, packaged meat operations, gourmet departments, delicatessens, and restaurants.

Our references to particular philosophies of branch store operations are not intended to indicate that any specific method is preferred, or even exclusively practiced by a particular tenant. The fluidity of merchandising techniques is such that developers of shopping center properties must, to some extent, be sufficiently imaginative to anticipate the trends in store operation.

Once the economic analysis has been completed, and due consideration has been given to all the points mentioned in this chapter, a geographically advantageous location for the development of a shopping center can be established. In those cases where a site has previously been purchased, it will be feasible to ascertain at this time whether the location of the site is suitable for the development of a shopping center at all and if so, what the size and character of a shopping center for that particular site should be to make successful operation possible. Once the question of general location is thus decided, a further investigation of physical characteristics of the site can begin.

PART I–CHAPTER 3

The Site

A tract of land must be subjected to a thorough and searching investigation to establish its suitability as a shopping center site. In the foregoing chapter we have examined the requirements which a general location must meet. Now we will discuss the qualities a tract of land must possess in order to be suitable 1) for the construction of a shopping center, and 2) for the specific type and size of center required to fulfill the economic aims revealed by the analysis.

Thorough site investigation is essential in all cases: whether a site is to be selected by a methodical investigation of all available land within an established location; whether the site is predetermined by the fact of ownership by the developer; or whether the site has been set aside for a shopping center within the over-all community development. In all these cases it is highly desirable that the land to be used meet these eleven standard requirements:

1) The site must be located in the general area established as most desirable by the economic survey.
2) It must be owned or controlled by the developer, or its acquisition must be feasible.
3) The cost of the land must be in keeping with over-all economic considerations.
4) Existing zoning must permit usage of the site for shopping center purposes, or there must be a reasonable likelihood that rezoning can be achieved.
5) There must be enough land to allow construction of facilities that will meet the sales potential.
6) The shape of the site must be such that advantageous planning is feasible.
7) The land must be in one piece, free of intervening roadways, rights-of-way, easements, or major waterways, etc. that would force development in separated portions.
8) Physical characteristics of the land must permit advantageous planning and reasonably economical construction.
9) The surrounding road pattern and the accessibility of the land must allow the full utilization of the business potential of the projected center.
10) The possibility of achieving visibility of the shopping center structure from major thoroughfares must be present.
11) Surrounding land uses should be compatible with the operation, free of competitive developments; and should, if possible, offer contributing and enhancing characteristics.

Only rarely will an investigated site completely fulfill all the requirements listed above. In most cases, advantages will have to be weighed and balanced against shortcomings. If a site is to be selected, then the most logical procedure is to consider the available sites within the location, analyze each of them, and acquire the site that best meets the eleven standard requirements.

In most cases, however, the site already exists. The owner of a piece of land has concluded that his site, which his forefathers may have used for farming, railroad yards, or for the family mansion, is ideally suitable for a shopping center. These "would-be" sites are usually regarded by their owners with the same affection that a mother feels for her children. Unfortunately they do not always live up to the fond hopes of the owners.

It is probable that most poorly operating shopping

centers in the United States are located on such "accidental" sites. However, there is always a possibility that the wishful thinking of the owner coincides with satisfactory location and site conditions. Such "existing" sites will have to be scrutinized for location requirements (see Part I, Chapter 2) as well as for the standard site requirements.

Where entirely new communities are being created, site selection becomes part of the over-all master planning procedure; and developer and planner find themselves in the enviable position of being able to set aside, before a single structure has been planned or erected, the most advantageous site in accordance with the eleven standard rules. In such cases, a great advantage exists because surrounding areas and traffic can be planned simultaneously with site location. If developers and planners act with wisdom, foresight, and ingenuity, they will have the unprecedented opportunity of creating the "ideal" shopping center site.

We will now investigate in greater detail the requirements inherent in the eleven rules.

1) Location of Site. We mention again that the correct location from the point of view of business potential is of overriding importance.

2) The Possibility of Acquisition. Ordinarily, it is possible to spot several sites which would be suitable for a shopping center development within the general area of favorable location characteristics. One of these will usually have more advantages than others. The problem then becomes one of intelligently ascertaining economic and physical virtues. Physical conditions should be considered in the light of economics since design and engineering are advanced to the point where almost any site can be used, provided it is large enough and the cost of making it suitable for construction is not unduly high.

The acquisition of a selected site usually begins with an investigation by the prospective buyer, or his broker, of existing ownership of one or more parcels of land. In most areas where sufficient potential for a major center exists, a substantial amount of property has already been developed, leaving relatively few isolated parcels of sufficient size. Since these locations are generally within settled residential areas, property has usually been subdivided to such a degree that fragmentation of ownership presents a serious problem. Obviously, sites under single ownership or large parcels in ideally situated locations are rare.

When one attempts to select a site in a predominantly rural area to simplify acquisition and reduce land cost, results are apt to be unsatisfactory. Because there is a maximum sales volume per square foot of floor space that can be realized by a typical retail tenant of a shopping center, it is necessary to tailor the entire economic structure of a project to that maximum. Locating a project in a rural area will usually tend to lower this attainable sales volume. Therefore, land acquisition must always take place within the economic framework, which establishes both a ceiling on the price that can be paid for property and a floor under the quality of the location that can be tolerated, in view of the fact that building and other improvement costs are likely to be similar regardless of location.

Good locations, even with high land costs, are likely to produce successful projects, whereas similar developments in poor locations, with low land cost, may result in failure both as merchandising ventures and as investments. The acquisition problem is intensified in the case of regional shopping centers because of the need for large tracts of land —extremely difficult to find in satisfactory locations under one ownership.

Multiple ownership of the proposed site frequently results in protracted negotiations. Very often developers can acquire control of substantial parts of the site but find that one or two property owners are "holding out." The owners may be genuinely unwilling to sell on any basis (for sentimental or other reasons) or they may sense that the value of their parcel might increase substantially if they hold on to it long enough. There are numerous examples of regional centers in which such "hold out" parcels exist, even after many years of operation. Some of these take the form of single family residences located almost in the middle of a large parking lot.

Whatever the reasons, "hold out" cases frequently occur and result in greatly inflated prices for portions of the total site. However, because regional shopping centers probably represent the most intensive land use that can be planned in suburban areas, it is usually well within reason to acquire even expensive single parcels in order to complete the acquisition of a site, provided that the over-all average price of land does not exceed a figure that can be justified within the economic framework.

It has been established beyond a doubt that properties adjacent to such major commercial enterprises appreciate in value, primarily by reason of the center's traffic-generating capacity. These areas can be expected to support economically office buildings, research and light industrial facilities, hotels, motels, recreational facilities, garden apartments or high rise apartments, as well as additional noncompetitive retail facilities. Though a great increase in the value of fringe property can be anticipated over a period of one to ten years following completion of a project, there are, of course, cases where it is either impossible to get complete control, or where speculative action has already fully discounted the investment value. (The land usage of fringe properties will be discussed more fully in Part II, Chapter 4.)

The need to minimize acquisition costs, coupled with the desirability of obtaining as much property as possible in order to accommodate fringe property uses and to provide for future growth of the shopping center itself, frequently necessitates a compromise as far as location is concerned. Because the principal controlling factor for site acquisition is *business potential*, compromises with

regard to location should be made only if it can be established with absolute certainty that the economic potential of the center will not suffer.

3) Reasonable Cost. Virtually all sizes and types of shopping center, whether neighborhood, intermediate or regional, are faced with approximately the same acreage cost limitations, as far as land acquisition is concerned. However, the extent to which total investment in land is justified is often related to the availability of certain tenants. If, for example, a strong department store tenant is interested in the center, then the project will assume regional proportions and the minimum amount of land required will be 40 acres, the maximum 200 acres and more. For a 40-acre parcel, a land investment of well over one million dollars may be justified. At the other end of the scale are those projects which could anticipate a supermarket as a dominant tenant and major traffic generator, in which case the project might only require five acres with a maximum investment in land of possibly $200,000.

Because construction costs, architectural standards, land costs, rents and sales potential vary from location to location, even within the same city and, of course, from city to city and region to region, it is impossible to generalize about a reasonable cost for site acquisition. The amount which can be justified for land acquisition cost depends, furthermore, on site improvement, building costs and obtainable rents, and on the proportion of high-rent to low-rent tenants within a given project. For example, if the proportion of department store space in relation to the total building area of the project is very high, then a relatively lower land cost may be indicated. In such cases, many developers find that they can create a satisfactory investment only by selling a portion of the land to the department store and thus separate this land cost and construction cost from the rest of the project.

Most regional shopping centers are developed by entrepreneurs prepared to accept a substantial risk under circumstances where the ultimate development possibilities cannot be predicted, rather than by institutional investors interested in securing lower but safer returns (see Part I, Chapter 1). For higher risks, land must be cheaper. It is not possible to define the extent to which the interest of the entrepreneur differs from that of the long-term investor. However, the entrepreneur, without a commitment in advance from a major tenant, is usually unwilling to pay more than one-third of the land value likely to be developed when the project is completed. This probably limits maximum land costs for such enterprises to less than $40,000 per acre and this price can only be considered for property that can be developed immediately.

4) Zoning of Site. A site zoned for commercial use ordinarily costs more than one zoned for residential or agricultural use. However, it is not mandatory that a selected site be commercially zoned, since in many cases a logical location can be rezoned (see Part I, Chapter 4). Major sites very often are not zoned commercially at the outset. This may be due to the characteristic type of strip zoning which prevails in many of our suburban areas or to the unwillingness of zoning commissioners to grant unusually large amounts of commercial zoning to any one owner without knowing in advance the manner, methods, and extent of commercial development. The effort required to obtain rezoning is, of course, likely to be time-consuming and costly, but both of these factors can usually be held within reasonable limits. Experience indicates that rezoning may be obtained within eighteen months after the exploratory phase of the project has commenced if the zoning officials have been notified in advance and have given some assurance of a favorable attitude. However, since there is always a certain risk present that rezoning may not be obtained, planning work should not proceed too far before the zoning problem is solved.

5) The Size of the Site. In Part II, Chapter 3 we shall discuss thoroughly the various elements of a shopping center and their relative space needs. We also shall explore a number of methods by which these elements can be placed, and we will show that great flexibility exists in this respect. Theoretically, a shopping center of about 500,000 square feet of rental area can be placed on a site ranging anywhere from 14 to 66 acres. Obviously, however, smaller sites will force unusual arrangements which result in high capital expenditure and will be found usable only under specific economic conditions.

The greatest freedom in the placement of shopping center elements is offered in the large regional center, the most limited in the small neighborhood center. The reason for this is that stores in a neighborhood center characteristically call for a one-level arrangement. In contrast to this, in a regional center which contains large retail units, space elements can be stacked vertically, sometimes as high as five levels.

Wherever possible, the size of the site should provide not only for the initially indicated amount of rental space but space for growth as well (see Part II, Chapter 5). In most suburban locations the cost of land per square foot will be less than the square foot construction cost of a parking structure. Land costs for suburban centers will vary between 10¢ and $2.00 per square foot. If one considers that the construction cost of double-deck parking, depending on location and other circumstances, varies between $3.00 and $6.00 per square foot, it becomes obvious that the acquisition of additional land will nearly always be less costly than the construction of two-deck or multi-deck parking facilities. The most desirable size for a site, therefore, is one that will permit the construction of a shopping center in which all elements can be placed easily.

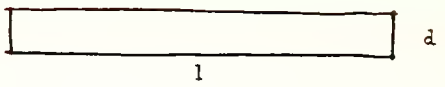
There are, of course, those cases in which the most desirable site, in the most desirable location and of sufficient

size, simply cannot be found. In such cases, investigation will have to be undertaken to determine whether an unconventional arrangement of merchandising operations will be acceptable to the major tenants and whether additional costs accruing from unconventional construction or multi-deck parking facilities can be justified by the income potential. If such investigation should show a negative result, the project will have to be abandoned or greatly reduced, even if a large shopping potential does exist. Before deciding to build a smaller center than would satisfy the existing potential, one should consider carefully whether such a decision would lead to inherent weaknesses: the center might not then be large and important enough to exert the pulling power necessary for even the reduced size, or it might not be able to stand up successfully against existing or future competition.

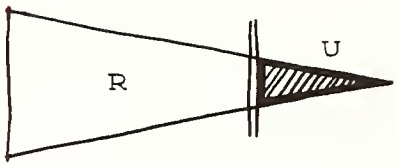
6) **The Shape of the Site.** The shape of the site may prove to be undesirable in a number of ways. If the dimension L (Length) is disproportionately large in relation to the dimension D (Depth), then it may be impossible to arrive at a successful land usage plan. If L is the dimension of the site adjoining the major road, one may find that parking facilities cannot be conveniently arranged and that a strip-like development with overextended walking distances between stores would result. If D should be the dimension of the property along the roadway, then site planning would suffer on account of poor accessibility, poor visibility and overextended driving and walking distances.

In the case of wedge-shaped or irregular-shaped sites it is possible that certain portions of the site may have to be ruled out in considering the placing of elements of the shopping center. For example, the portion marked U in the illustrations may prove useless for either structures or transportation areas and would, for all practical purposes, have to be disregarded in considering the size of the site. Should the remaining portion, R, still be sufficient for the development of the shopping center, the site might still be regarded as suitable. However, in any consideration of irregular-shaped sites, exploratory planning will have to indicate whether a successful shopping center with the specified rental area can be logically placed on the land. Thus, irregular sites, even if their acreage is theoretically sufficient, may prove unsuitable because their full utilization is not feasible. In exceptional cases irregular shapes may lead the imaginative architect to interesting new expressions and solutions. Usually, however, even the use of great ingenuity results only in forced, expensive solutions and the site may have to be declared unsuitable.

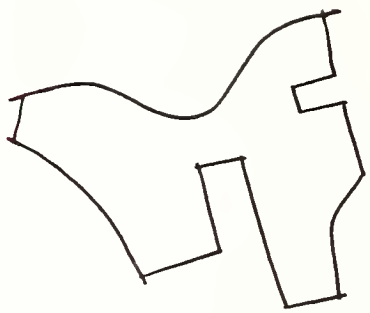
7) **The Site Must be in One Piece.** A site that consists of parcels A, B and C which are divided from each other by highways number 1 and 2, is not a site at all; it is three sites. If it can be proven that piece A alone is sufficient to take care of the elements of a complete shopping



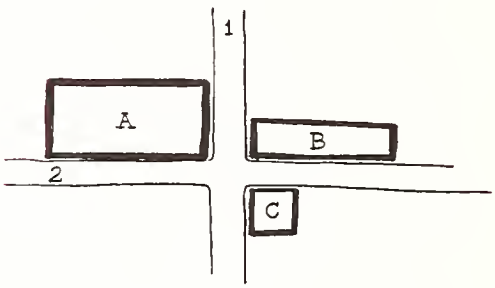
Disadvantageous shapes for site. 1) L is disproportionately large in relation to D.



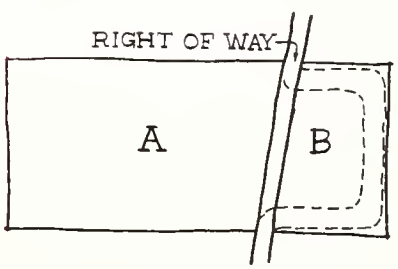
2) Portion marked U made useless.



3) Irregular shape.



Disadvantageous sites.
1) Because of division by highways.



2) Because of existence of right-of-way.

center, then B and C could be used for secondary elements — possibly for a secondary market or for non-retail purposes. Any attempt to place the main elements of one shopping center on the separated pieces A, B and C, is bound to be self-defeating. Such efforts would create undesirable and unsafe traffic conditions, inter-shopping would be impossible and economic failure could result.

A right-of-way cutting through a site of acceptable size and shape may reduce or destroy its usefulness. If piece A, to the left of the right-of-way, is in itself sufficient to accommodate all major elements of the shopping center, then B might be utilized for secondary elements like reserve parking, overflow parking, or perhaps, marketing facilities. The disadvantages of the right-of-way as a foot traffic barrier may be overcome by bridging for pedestrian walks. In some cases, additional bridges for the distribution of parking traffic may become necessary. The cost of such improvements will have to be carefully weighed in relation to the over-all economic framework and before deciding to undertake them, every effort should be made either to remove the right-of-way or to change its routing towards the periphery.

Similar considerations prevail if major waterways — brooks, canals, arroyos, drainage ditches, etc. — should cut through a site. Re-routing, bridging or total covering will have to be investigated. Thorough investigation into the danger of flooding will have to be made. If remedies are feasible within the economic framework, or if a portion of the site lying to one side of the waterway is of sufficient size to accommodate the main elements of the shopping center, the site will be acceptable. Otherwise, it will have to be rejected.

Rights-of-way of telephone lines, power lines and other utilities might also diminish the usability of a site. In the case of South Bay Center in Redondo Beach near Los Angeles, for example, a large site was divided into two pieces by a broad right-of-way for power lines. Using the right-of-way for roadways was permissible, but it could not be utilized for parking facilities or structures. In this case only the larger portion to one side of the power line right-of-way was utilized for a regional shopping center, while the smaller portion was used for recreational facilities consisting of a bowling alley, restaurant and social hall. Certain benefits were gained for both shopping center and recreational facilities because of the possibility for interchange of automobile traffic between the two site portions. The area under the power lines was attractively landscaped to encourage foot traffic.

8) Physical Characteristics. The topography of the land can be an important factor; steep slopes, upward or downward from surrounding roadways, necessitate unconventional planning.* Extensive grading will be required if a hill must be cut down and the cut used to build up a plateau, or if large filling operations are necessary for which fill material may have to be imported. The situation will

Section through site on which cut and fill can be balanced.

Disadvantageous site needing major fill importation.

Site requiring major earth movement with portions marked A remaining unusable.

Sloping site which can be utilized by two-level arrangement.

be relatively simple if cut and fill can be balanced. All major earth movement operations are costly and usually result in the loss of usable land. The illustration shows a site in which the portions marked "A" cannot be utilized by the shopping center; furthermore, problems are created in the transfer of road traffic to parking areas.

Undesirable topographic conditions are sometimes coupled with exceptionally low land costs. In such cases, the cost of earth movement can usually be absorbed within the economic framework. If land cost is normal, however, the extent and cost of such additional site preparation must be given careful consideration. If a site slopes slightly, (see illustration) and its slope coincides with the slope of

*Two-level or multi-level projects present unusual economic leasing and planning problems. They require thorough study and superior skills on the part of the planning team and its assistants. Further information, based on operating experience, will become available in the near future, as a number of such centers have opened recently. Both positive and negative operating results should be carefully weighed in the light of other prevailing conditions before judgment is exercised.

the surrounding roads, then an opportunity for a two-level arrangement of buildings might exist. In this case, Building Group No. 1 would be one story high. The second floor of Building Group No. 2 would then be entered by ramps or stairs from the pedestrian area, while its first floor could be entered directly from the parking area. Many other variations can be developed through site planning and architectural design by which apparent disadvantages of irregular topography can be turned into positive advantages. The chances for succeeding in this respect will be greater for large shopping centers than for small ones, greater for centers with very high income potential than for those with lower potential. Sometimes it is feasible to take advantage of a slope by arranging double-deck parking on the lower portion of the site and store entrances on two levels. The illustration shows that Building Group No. 1 would be one-story high. Building Group No. 2 would have one floor and basement with a portion of the latter used for retail purposes.

From the above it can be concluded that, depending on the degree of the slope, on the placement of the shopping center elements, on the size of the center and on its economic potential, sites with unusual topography may lend themselves to development without major sacrifices. In other cases, they can be utilized only by introducing additional construction features resulting in additional costs. The magnitude of such additional costs will be an important consideration when deciding on the suitability of the subject site.

9) Accessibility. In Part II, Chapter 6, we will discuss the methods by which peak traffic loads for shopping centers can be pre-established. The road net surrounding a center must have the capacity to carry such peak loads, as well as normal traffic, without strain. If it is found that the road system cannot carry the additional peak traffic loads the center would generate, then the following must be investigated:

a) Whether authorities are willing, ready and able to implement road improvements to correct this condition.

b) If this should not be the case, whether the developer would be permitted to undertake the necessary improvements at his own cost, possibly with an agreement for later reimbursement. Calculate the costs of such improvement and determine whether they can be absorbed within the economic framework.

c) If a and b should prove to be negative, then the existing reserve carrying capacity of the road system would have to be established and calculations made as to what size shopping center could be constructed within the framework of this traffic-bearing capacity. If it were shown that the shopping center scheme would have to be reduced to the point where the shrunken rental area would render it economically unsound; or if it became evident that a shopping center of such reduced size could not stand up successfully against existing or future competition, the site would have to be rejected. Accessibility is judged not only on the basis of the carrying capacity of the surrounding road system but also on a basis of smooth and convenient transfer from the road system to the site. Where limited-access highway or topographic conditions restrict such possibilities, orderly transfer may prove difficult to obtain. It may be possible to establish satisfactory transfer by the construction of ramps, overpasses, cloverleaves, signaling devices or similar measures. The cost of such improvements and whether such costs will be borne by the authorities or by the developer are decisive factors in arriving at conclusions concerning the suitability of the site.

Sloping site which can be developed by the introduction of double-deck parking on the lower portion.

Only the roofs will be visible from surrounding roads.

10) Visibility. If surrounding roads are located high above the main shopping center level, visibility may be confined entirely to the roofs of buildings. Inasmuch as roofs of commercial structures are usually pierced by ducts, shafts and pipes, they tend to be unattractive and create poor visibility from a promotional point of view. Various design devices like the construction of sign towers might be employed to counteract such ill effects. However, the cost and effectiveness of such special structures should be considered before accepting the site as suitable.

The surrounding roads may be located considerably lower than the main level of the site. In that case, drivers would have a view of grassy slopes and might easily drive by the shopping center, unaware of its existence. This might be counteracted by attractive signs if they are sufficiently effective to justify their cost.

Only the slopes will be visible from surrounding roads.

Existing structures conceal the site from surrounding roads.

Existing structures, such as commercial buildings, billboards, and residences, may block any view of the center. The possibility of removing at least some of these structures and the cost of doing so would have to be considered before accepting the site.

Lack of visibility would be most harmful to the small and intermediate center. The large regional center can at least partly overcome the disadvantages of poor visibility by advertising and by the general prominence of the center in the public's consciousness. However, poor visibility is a strike against successful operation. A site with extremely poor visibility should be chosen only if there are distinct advantages to make up for this disadvantage.

However, we would like to stress that it is not essential that each individual store have visibility. The need for such visibility has been highly overrated by chain store organizations and other tenants. What does count is general visibility of the shopping center, of its signs, its landscaping and the general contour of its building mass. This statement gains in validity as the shopping center increases in size. The success of a large center does not depend on the ability of drivers to identify the names of individual stores from surrounding roads or even from

Northland Shopping Center, Detroit. Not even the department store features a large sign. Architects: Victor Gruen Associates. Photograph: Photograph House, Detroit

surrounding parking areas. Proof of this statement is offered by the fact that in one of the most successful shopping centers, Northland, near Detroit, the department store does not feature a sign that can be read from the surrounding areas. The beneficial effects of visibility are established by the skyline of the building cluster and by the pleasant landscaping of the buffer areas, as well as by four landmark signs placed in strategic places visible from the surrounding roads. The architectural character which expresses size and importance of the institution is, in a regional shopping center, vastly more important than the readability of signs from surrounding roads.

II) Surrounding Areas. Sites (especially for larger centers) that offer no possibility for controlling the development of surrounding areas must be regarded as less desirable than those in which such controls are feasible (see Part II, Chapter 4). It is most essential to be able to exercise such control when properties near the shopping center, either abutting or facing it on the opposite side of the street, are commercially zoned or when a strong possibility exists that such zoning might take place in the foreseeable future. In such cases, the probability that "non-conforming" uses might develop is extremely great. We characterize as non-conforming all uses which would interfere with an orderly and successful operation of the shopping center. Enterprises which generate an excessive amount of traffic, noise or smells, must be regarded in this light. We also have to include in this category uses which would create a disorderly and ugly appearance. Especially unwelcome is the possibility that fringe areas might be utilized for competitive retail facilities which could assume the characteristics of "pirating" enterprises. Such "pirates" are stores that utilize the superior facilities for parking and access created by a shopping center and attempt to partake of the center's power of attraction without making any contributions of their own. Such pirating stores will tend to overburden the parking facilities and interfere with the orderly traffic flow. They may also, because of their inferior and cheaper structures and facilities, be able to undersell the tenants located in the shopping center and siphon off a portion of the buying potential.

Thus, in cases where commercially zoned or to-be-zoned fringe properties exist, it is desirable that such property should be acquired by the developers, even if comparatively high prices for the acquisition have to be paid.

Where retail competition is already in existence in the immediate vicinity of the shopping center, the effects of such competition should be taken into consideration in the economic analysis.

Summarizing, it can be concluded that the selection of a site poses complex problems. A proper decision in respect to the suitability of a particular site can only be reached if all conditions are properly accounted for and economic effects are calculated in dollars. Imaginative planning and architectural design can frequently compensate for a series of unfavorable features — provided, however, that the general location is suitable in every respect.

This list indicates the relative importance various factors might assume in decisions concerning site selection.

SITE SELECTION WEIGHT LIST

	VALUES
I. LOCATION	**50**
1. Population within one mile — Quantity	5
2. Population within one mile — Quality	3
3. Population within five miles — Quantity	7
4. Population within five miles — Quality	4
5. Population from rural area — Quantity	2
6. Population from rural area — Quality	1
7. Pedestrian Traffic Shopping at Adjacent Stores	5
8. Pedestrian Traffic Nearby for Other Purposes	3
9. Public Transportation	5
10. Automobile Traffic — Quantity	4
11. Automobile Traffic — Availability	4
12. Direction of Population Growth	7
II. AREA	**15**
13. Size of Plot	15
III. PHYSICAL CHARACTERISTICS	**25**
14. Shape of Plot for Design	4
15. Plot not Divided by Traffic Lanes	8
16. Location on Arterials for Ease of Traffic Control	4
17. Cost of Clearing and Grading	2
18. Cost of Utilities and Drainage	2
19. Visibility	3
20. Surrounding Areas	2
IV. AVAILABILITY	**10**
21. Ease of Acquisition and Time	6
22. Cost	4
	100%

PART I–CHAPTER 4

Zoning

When a site is not zoned so as to permit the construction of commercial facilities, the developer will have to use every effort to achieve rezoning. Also, when portions of the surrounding area are zoned for purposes contrary to the best interests of the shopping center, rezoning efforts might be indicated.

The intent of zoning is to bring a semblance of order into dynamic but anarchistically expanding areas and to guide their growth along more desirable lines. In the United States the idea of zoning occurred as a reaction to the rapid industrialization that took place during the second half of the Nineteenth Century, at a time when the separation of home and factory seemed of greatest urgency. Technology was still in its adolescence, and smoke-belching industrial plants cast a pall of soot, smoke, grime and noise over the homes which surrounded them. Zoning coincided with the mass flight from dirty cities and the birth of suburbia.

The reaction against primitive technology resulted in strict separation of land usage into industrial and residential zones. As years went by, zoning laws were further refined and communities were divided into residential zones of varying density and usage; commercial zones covering a variety of classifications; and industrial zones of numerous types. Zoning was the first practical step in the direction of city planning but because planning experience was limited, regulations were frequently applied with undue rigidity and more often than not were rather impractical. For example, in 1916 zoning for the city of New York "would permit . . . a nightmare of 55 million residents and 250 million workers,"* while in the suburbs commercial zoning was provided far beyond the possible needs of the community. It was common practice and, unfortunately, is still the practice in many communities today, to zone ribbons of land along all major suburban roads at a depth of 100-200 feet for commercial use. This type of zoning gave birth to ribbon or strip developments with inadequate parking facilities. This created traffic congestion until normal traffic on these suburban highways became impossible.

As zoning legislation matured, attention was turned to such factors as the size, shape and location of buildings in relation to each other and to lot lines. Zoning is an eminently useful and important planning device. That the preservation of public welfare is inherent in zoning has been recognized by the courts of the land. The courts have held that districts created through such regulations, free from disturbing conditions, from risks, from detriments to health, will further the maintenance of the American family. The exercise of police power that is constituted in zoning regulations is delegated to local government by the state.

The problems which arise from zoning regulations do not stem from the basic principles inherent in the zoning concept but rather from the fact that the detailed application and administration of zoning laws have not kept pace with technological developments, especially in the last thirty years.

*From Preface to "Proposal for a New Zoning Resolution" by James Felt.

Smoke-belching industrial plants of primitive technology.

EXISTING ZONING

Typical commercial zone along suburban highway.
Courtesy of Harland Bartholomew and Associates

Today we begin to perceive that although some uses are obviously incompatible, there are many others which can and should be arranged close to each other as integral parts of community life. In other words, all types of non-residential activities are not necessarily undesirable in predominantly residential areas. Shops and stores provide an essential service for residents, somewhat akin to schools and libraries. Working places that do not create disturbing noises, smells or sights — offices for doctors and dentists, general offices, technical laboratories and even light industry — can be an asset, if properly arranged, rather than a disadvantage to nearby residences. Their proper location as an integral portion of a residential community will shorten or eliminate driving time and thus contribute to an easing of our traffic problems. Regional application of zoning ordinances has created vast stretches of suburban "bedroom" towns far distant from places where the residents can work, shop, seek professional advice or satisfy their need for entertainment, social activities or cultural enrichment. Zoning standards, now based more or less superficially on categories of buildings, must be modified to include performance and use standards for various types of structures. These regulations will have to prohibit placement of any structure that creates nuisances such as odor, noise, dirt, etc. in areas used for residential purposes or for any other purpose that requires quiet and restfulness.

The conviction is growing in all parts of the country that the application and administration of zoning regulations must change in the direction discussed. Progressive planners, planning commissions and zoning boards are generally receptive to consideration of these facts.

The modern shopping center which integrates commercial, business, entertainment and cultural facilities within a carefully planned framework, which separates various modes of traffic from each other, and which provides for the protection of surrounding residental areas from any objectionable performances, has made a significant contribution in this direction.

The shopping center developer who has selected a site may encounter one of the following situations so far as zoning is concerned: 1) The site is commercially zoned, or zoned for a "lower" use, and there is no problem. 2) The site is located in a community which has not yet adopted a zoning master plan. In that case, it is likely that the local planning board will consider a developer's indicated preparedness to proceed with the development of a well-planned shopping center and will be willing to grant corresponding zoning. 3) Only a small portion, usually a narrow strip along the highways, is zoned for commercial usage. The remainder is zoned residentially or else the entire site area is zoned residentially. In this case, the owner will have to apply for rezoning of a portion of the site or of the entire site.

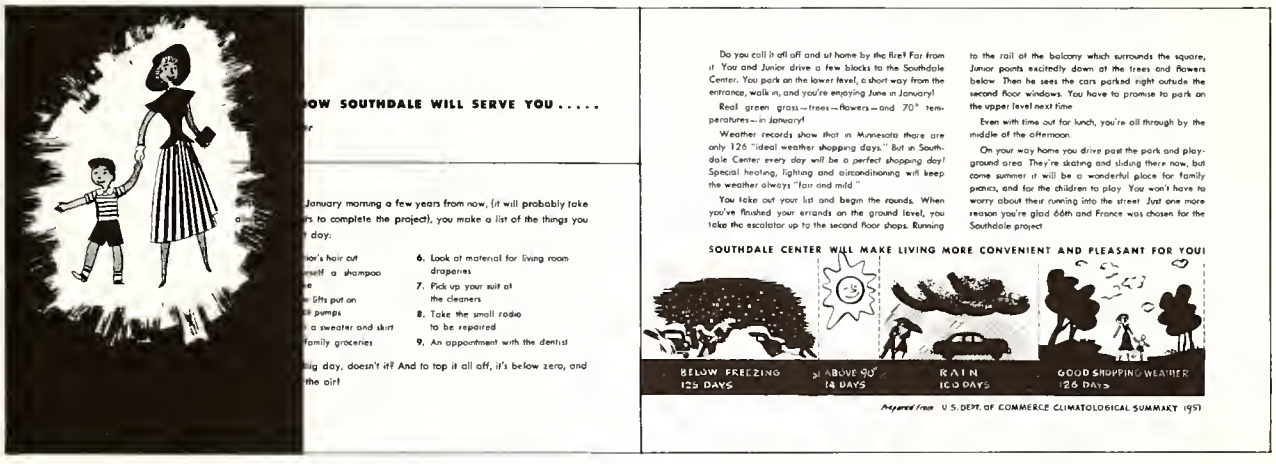
Even where commercial zoning does exist, regulations dealing with set-backs and building heights could create difficulties for a well-planned shopping center; in such instances application for modifications may have to be made. Off-street parking requirements, often contained in zoning ordinances, usually call for parking standards quantitatively below the ones a good shopping center would normally provide; thus difficulties are, in this respect, only rarely encountered.

The makeup of a zoning office varies. In the small city the zoning commissioner both reviews and checks applications and acts also as an administrator. In the larger city organization the zoning administrator's sole function is to settle variances and exceptions; the building department handles all cases involving the enforcement of zoning regulations; and the receiving of applications and reviews is vested in a planning staff.

The responsibility of the zoning agency lies entirely within the following sphere of activities: i) To receive and review zoning applications. ii) To review building plans in the light of compliance with zoning regulations. iii) To inspect existing conditions and prosecute violators of ordinances. iv) To process zoning change applications. v) To advise the governing body or other officials concerned about zoning matters. vi) To defend existing ordinances and decisions. vii) To establish and administer rules and procedures for the application, processing, and disposition of zoning problems.

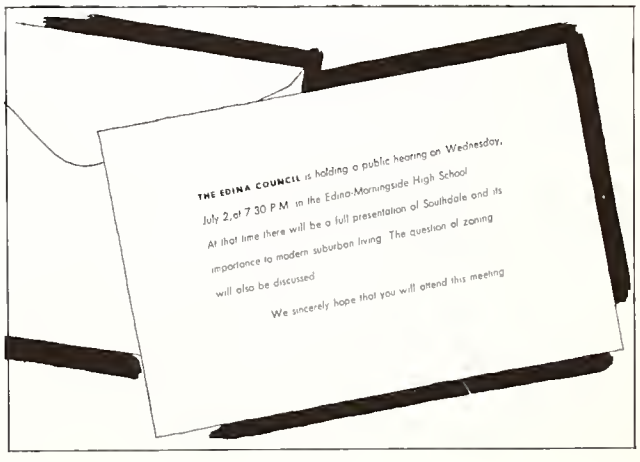
Normally, zoning actions and decisions may be appealed to an Appellate Tribunal with the ultimate possibility of appeal to the courts, so that the interests of both community and individual are safeguarded. It is normal procedure for the zoning application to be published. Zoning investigators examine conditions in the field and a report is made. A public hearing notice is then published and affected property owners within a certain distance of the project are, as a rule, notified by mail. Normally the hearing is conducted before the Zoning Board. At that time the proponents and any opponents of the zoning change will be given an equal opportunity to be heard, to present witnesses for or against the change and to bring to bear all evidence which might be of interest to the council or commission in making its decision. After the hearing, the material presented is reviewed and a decision rendered — in some cases, the application is granted in part and denied in another part. During the legally required public hearing any residents within the affected area have the right to be heard and the granting of the zoning application may be influenced by their testimony. Therefore, it is advisable to establish good public relations, in advance of the hearing, within the entire area not only from the point of view of favorable results for the zoning application, but also in order to establish a favorable climate for the future operation of the shopping center.

More often than not an application for a large or medium-sized shopping center will arouse unfriendly reactions in residents of surrounding areas arising from various fears and anxieties: shopping center traffic might invade quiet residential streets; blatant signs and


OW SOUTHDALE WILL SERVE YOU . . . . .
January morning a few years from now, (it will probably take
rs to complete the project), you make a list of the things you
day:
ior's hair cut
rself a shampoo
e
lifts put on
pumps
a sweater and skirt
family groceries
6. Look at material for living room draperies
7. Pick up your suit at the cleaners
8. Take the small radio to be repaired
9. An appointment with the dentist
ig day, doesn't it? And to top it all off, it's below zero, and the air!
Do you call it all off and sit home by the fire? Far from it. You and Junior drive a few blocks to the Southdale Center. You park on the lower level, a short way from the entrance, walk in, and you're enjoying June in January!
Real green grass—trees—flowers—and 70° temperatures—in January!
Weather records show that in Minnesota there are only 126 "ideal weather shopping days." But in Southdale Center every day will be a perfect shopping day! Special heating, lighting and airconditioning will keep the weather always "fair and mild."
You take out your list and begin the rounds. When you've finished your errands on the ground level, you take the escalator up to the second floor shops. Running to the rail of the balcony which surrounds the square, Junior points excitedly down at the trees and flowers below. Then he sees the cars parked right outside the second floor windows. You have to promise to park on the upper level next time.
Even with time out for lunch, you're all through by the middle of the afternoon.
On your way home you drive past the park and playground area. They're skating and sliding there now, but come summer it will be a wonderful place for family picnics, and for the children to play. You won't have to worry about their running into the street. Just one more reason you're glad 66th and France was chosen for the Southdale project.
SOUTHDALE CENTER WILL MAKE LIVING MORE CONVENIENT AND PLEASANT FOR YOU!
BELOW FREEZING
125 DAYS
ABOVE 90°
14 DAYS
RAIN
100 DAYS
GOOD SHOPPING WEATHER
126 DAYS
Prepared from U. S. DEPT. OF COMMERCE CLIMATOLOGICAL SUMMARY 1951

other expressions of poorly designed commercial structures may mar the character of the area; residential streets may be used by shopping center visitors for curb parking, etc. Such concerns are understandable because the average person is familiar only with the unplanned commercial strip development. One of the most important tasks for the developer is to convince all interested parties that his shopping center will not bring about any of the disturbances usually connected with inferior commercial development and that it will, by careful planning, achieve harmonious integration with the neighborhood. He should also explain the advantages his project will bring to the community: tax income to the municipality; complete shopping facilities near the residential area; landscaped pedestrian malls with park-like treatment; recreational and community facilities such as auditoriums and meeting rooms. This information should be disseminated a reasonable time before the public hearing. Printed brochures which describe the characteristics of the project, lectures before civic organizations

Brochure prepared by Southdale Shopping Center. It was distributed to area residents before a zoning meeting.


THE EDINA COUNCIL is holding a public hearing on Wednesday,
July 2, at 7 30 P.M. in the Edina-Morningside High School
At that time there will be a full presentation of Southdale and its
importance to modern suburban living. The question of zoning
will also be discussed.
We sincerely hope that you will attend this meeting

and service clubs showing slides depicting the features of the project, articles in local newspapers, etc. are some of the instruments that can be used effectively. It would be wise to contact the Chamber of Commerce and other interested parties who might be affected by the decision, to explain the planning of the project in detail.

At the public hearing the developer should present his case in a forceful but dignified manner. He should support his presentation by illustrations, slides, models, etc. He should be prepared to answer, in a clear and friendly manner, questions and even attacks from the audience. He will undoubtedly be asked what effect the shopping center will have on the value of residential property in the surrounding area. He should, therefore, be prepared to present factual proof that residential real estate values in areas surrounding well planned shopping centers greatly increase in value. The developer may finally be asked what would happen if, after commercial zoning for the site had been granted, he should change his ideas or sell to another developer whose aims and methods would be less lofty.

This question could be answered by citing a number of special ordinances for regional shopping centers which have been proposed and adopted. These go far beyond the framework of the usual commercial zoning ordinance in setting forth qualifications land usage has to meet.

In the case of Southdale Center, located in the Village of Edina, Minnesota, a special Regional Shopping District was established. The following restrictions are part of the new ordinance:

1) *Parking and Traffic Facilities.* No building permit shall be issued for the erection, alteration or movement of a building within a regional shopping district unless after the erection, alteration, or movement of such building, such regional shopping district shall contain adequate facilities for the parking of automobiles and other motor vehicles used by the persons employed or doing business in such district and shall provide an internal system of roads and walks which will adequately provide for pedestrian and vehicular traffic. In determining the adequacy of such parking and traffic facilities, no consideration shall be given to facilities available on adjacent public streets.

2) *Height of Buildings.* No building shall be erected to a height greater than 40 feet above the surrounding ground level, except a building may be erected to a height not greater than 70 feet above the average surrounding ground level if the owner of the ground on which such building is situated obtains the written consent of the owners of three-fourths of the property located within 500 feet of the outer edge of such building in all directions and if the part of such building exceeding 40 feet in height is not less than 250 feet from the center of any public street or any property zoned as an open development district. No portion of any building more than 40 feet above the surrounding ground level shall be used for dwelling purposes.

3) *Area and Size of Building.* No building permit shall be issued for the erection of any building in a regional shopping district having less than 125,000 square feet of floor space at the first floor level or less than 3,000,000 cubic feet of content until a building permit or permits for construction of a building or group of buildings substantially contiguous to each other containing not less than 125,000 square feet of floor space at the first floor level and not less than 3,000,000 cubic feet of content shall have been issued and construction undertaken or definitely provided for.

4) *Setback.* No building or structure shall be erected, altered or moved so that any portion or part thereof is nearer than 40 feet to the nearest property line of a public street.

Another part of the new zoning ordinance deals with the restriction of the new classification: A Regional Shopping District. The conditions of this portion are designed, on the one hand, to protect the community against over-zoning for commercial usages and the connected accumulation of traffic, and on the other hand, to safeguard the developer and the tenants against undue competition which, in its end effect, would create marginal business and decrease the tax income for the community. The restrictions on classifications state:

1) No property located within one-half mile of any property theretofore zoned as a Regional Shopping District shall be zoned for any use other than Open Development District.

2) No property shall be zoned as a Regional Shopping District unless such property consists of a single tract, divided, if at all, only by public streets and consisting of not less than 50 acres.

3) It is hereby declared to be the policy of the Village to restrict the rezoning of property so as to constitute a Regional Shopping District to those situations in which, in the opinion of the Council, the creation of additional Regional Shopping Districts is for the best interests of the entire Village.

Because shopping center development represents a major investment and considerable effort, (see Part I, Chapter 3 and Part II, Chapter 4) it is essential that the developer make every effort to prevent usage of the surrounding areas that would be detrimental to the project. Wherever the owner can acquire adjacent land, he should seek zoning that will permit complementary usage. This may take the form of office facilities, medical and dental buildings, research facilities, etc. Where such properties are residentially zoned the developer may apply for an ERO (Education, Research, Office) zoning classification. This type of zoning provides sufficient flexibility to include buildings for certain types of light industry, research, and offices of all kinds.

It is generally desirable to apply for zoning for the surrounding areas simultaneously with the application for the shopping center and to do this on the basis of an integrated over-all master plan. If the effort to insure zoning for surrounding areas is postponed until a later date, there is always the risk that the Zoning Commission will refuse it, in which case such land usually reverts to residential use or is left vacant. Where the shopping center developer is unable to acquire property in surrounding areas or where he is able to acquire only certain portions, he may still proceed with the development of an over-all land-usage master plan and, after negotiation with the owners of such land, apply for rezoning. This is often time-consuming, but is well worth the effort since an agreement will usually benefit all parties. A typical zoning ordinance for an Education, Research, Office zone permits:

1) Any use permitted in any residential district provided that such use shall comply with all of the zoning regulations of the highest residential area to which it is adjacent.

2) Any usoge charged with the principal function of research and technicol training.

3) Uses resulting from any of the following occupations: executive; administrative; professional; accounting; banking; writing; clerical; stenographic; drafting and sales; provided that there shall be no exterior area for the display of any actual product for sale, no outdoor storage of goods ond no warehousing or indoor storage of ony materials beyond that normally incidental to the obove permitted occupotions.

4) Hospitals, clinics, convents, convalescent homes, public recreation uses, clubs, ond similar institutions.

Permitted Accessory Uses:

1) Dormitories for students enrolled in and quarters for instructors employed by a non-profit institution offering technicol education.

2) Off-street parking lot in accordance with following requirements:

a) Bonks, business or professionol offices of lawyers, engineers, architects, or similar or allied professions, one car for 400 square feet of building area.

b) Professional offices of doctors and dentists, one cor per 100 square feet of building area.

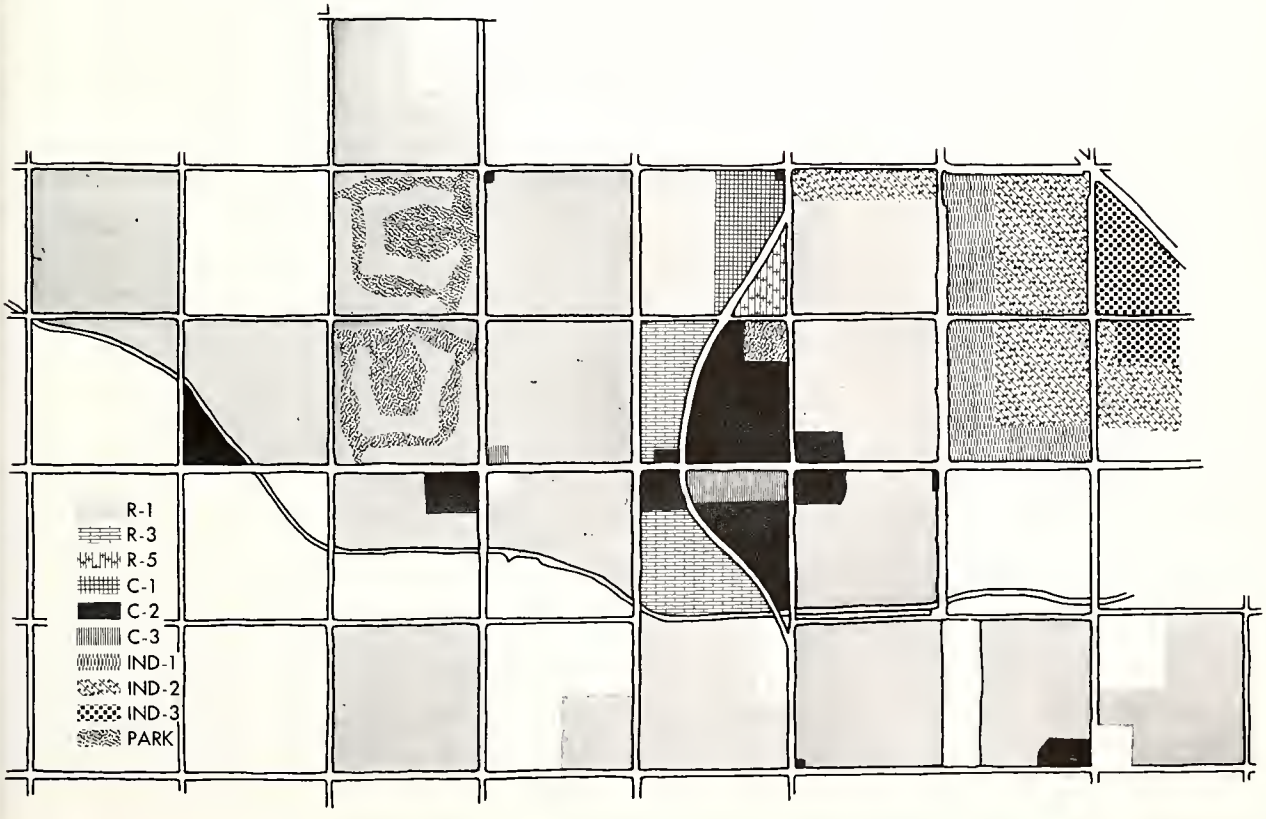
Permit from Board of Appeals Required for:

1) Such book and student supply stores, restaurant, coffee shop, pharmacy, barber shop, beauty shop, and florist shop, ond similar or no more objectionoble uses as are normally incidental to and are to serve the employees and other persons normally connected with the permitted principal uses of the premises.

2) Business signs in character with the development of the district.

Summarizing, then, it is evident that the developer should not regard zoning simply as a difficulty which somehow has to be overcome. Zoning is basically a device to bring about order and to protect property owners and residents from disturbing influences and, if properly understood and applied, can be utilized in the best interest of the developer's investment. Beyond that, zoning protects the communities surrounding the shopping center and thus safeguards the stability and well-being of the center's future customers.

Plan presented with zoning application. Maryvale Shopping City, Phoenix, Arizona. Architects: Victor Gruen Associates



PART I–CHAPTER 5

The Tenants

The character of a shopping center determines, in large measure, the character of the tenants it will attract. By the same token, the type and character of the shopping center will usually reflect the kind of tenants available to it.

Regional shopping centers are those in which the location and size of the development justify the participation of one or more department stores.

Community or intermediate shopping centers justify the establishment of stores with an aggregate floor area of between 100,000 and 350,000 square feet, including possible limited line branch department stores, junior department stores, or major variety stores, or a combination of these store types.

Neighborhood shopping centers are limited to a size of 100,000 square feet, and are suitable for supermarket or variety stores as major tenants.

Regardless of the size and character of the center, certain principles are applicable to the relationship between the landlord and the tenants in each type of project.

1) Role of the Key Tenant. In any center the availability of a key tenant is the necessary starting point in the renting operation. The important factors in obtaining a key tenant are the strength of the location, the policy of the available key tenant, and the extent to which its branch store program makes it available as a prospect.

If the projected center is in a prime location, and especially if two or more stores of each key type are available with policy and location principles that establish their interest in the specific location, the chances and terms for obtaining the key tenant may be relatively favorable to the developer. If these conditions are not present, substantial inducements may be necessary in the form of lease terms or other concessions, in order to obtain the necessary key tenant or tenants. The owner who makes his own investigation of the factors likely to lead key tenants to a favorable decision is in the best possible position to negotiate satisfactory terms.

The extent to which key tenants take the initiative in developing their own locations and acquiring land for their own purposes will have a substantial bearing on the strength of the bargaining position of the developer seeking them as key elements in the project. In many cases key tenants will construct their own shopping center projects or develop free standing buildings on property they acquire, partly in order to obtain lower occupancy costs, and partly to assure the availability of branch stores in locations consistent with their total expansion policy and requirements.

Regardless of such competitive factors, certain general characteristics of the tenant relationship are worth examining. A brief discussion of the specific area, location and rental factors applicable to certain types of tenant is contained in the chapter on leasing in Part II, Chapter 10.

2) Investigation of Opportunity. Certain key tenants, particularly the experienced chain stores, make their own investigation of locations and are little influenced by promotional material prepared by shopping center developers. In that case, the primary use of this material is to identify the location and to define the nature of the development the owner proposes for his property.

Investigation of economic opportunity by the developer is useful to him in suggesting the size of the store that can be efficiently operated by the prospective tenant. Such studies have a two-fold purpose: first, to avoid overbuilding for certain prospective tenants, with resulting low produc-

tivity of percentage rent; second, to ascertain the volume opportunity available to the tenant. This gives the developer a basis for determining his bargaining strength in the negotiating procedure.

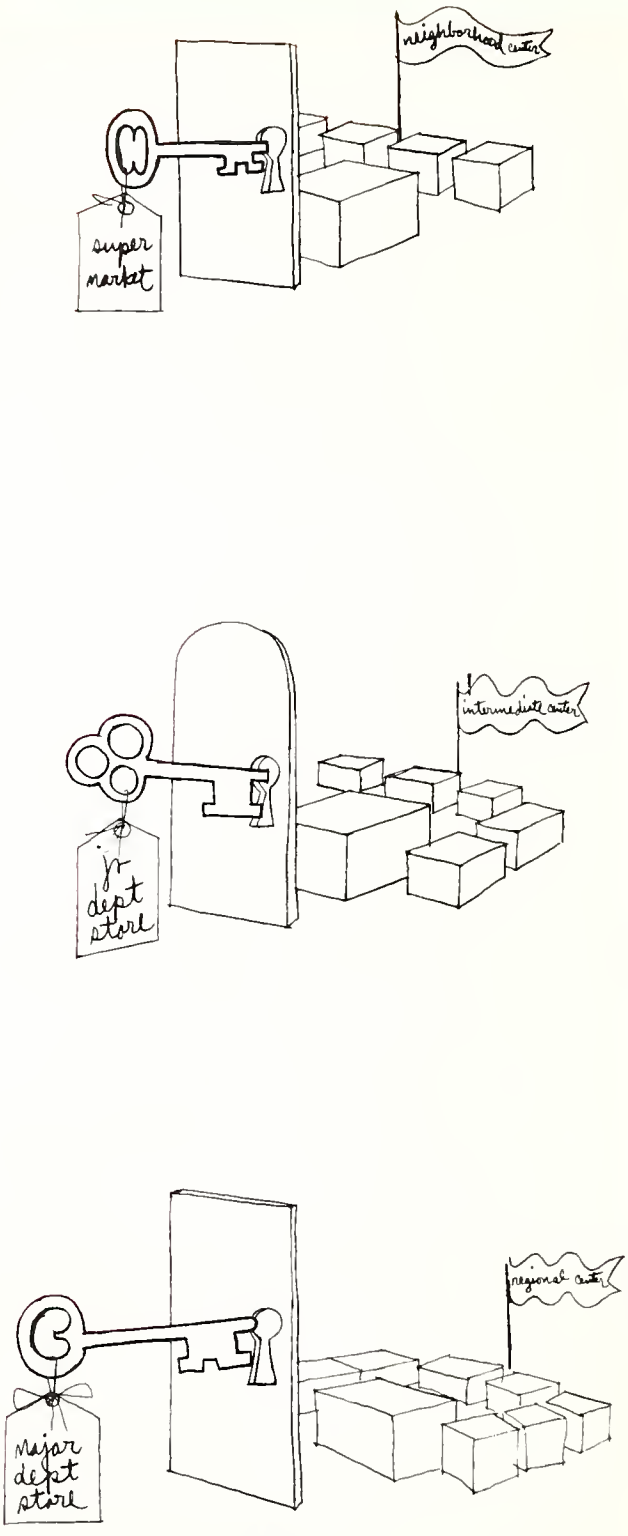
Prospective tenants, particularly department stores, may require the developer to pursue at least a preliminary investigation of business opportunity. The majority of department stores are offered so many locations that the cost of preliminary investigation becomes a serious matter. This type of study will differ substantially from the general economic study; it will relate specifically to the outlook for the particular department store under consideration.

Tenants occupying smaller space, who depend on the pedestrian traffic created by the key tenant and other large space users, are unlikely to require an investigation of opportunity as a preliminary step. The interest of the tenant will hinge chiefly upon the presence and location of larger stores in the project. However, investigation of the business opportunity is still important to the developer for planning and negotiating purposes.

3) Attitude toward Plans. A similar variation in attitude toward architectural and other physical planning aspects of the center will be found among tenants. Department stores, especially those of broad experience, will take a keen interest in the over-all architectural plans for the project. They will be interested not only in the specific location for their own store, but in the efficiency of the plan as such. This interest will be predicated in most cases on the conviction that the project as a whole must be successful, and that their location must not only be suitable for their own use, but should be such as to contribute strength to the other tenants in the center. This attitude has developed during recent years as their experience in similar projects has grown and it is a reflection of their attitude of enlightened self-interest. Such stores will also take a lively interest in the location and extent of parking as well as in the studies of traffic and traffic control devices.

This intelligent interest in project design will also be shared by supermarkets, major restaurant operations, and large specialty stores, which by experience have found that these factors are important to their own and the project's success. There is little likelihood of a clash of interest among these store types. Experience has shown that the role of the key tenant or tenants in each project is generally recognized by other important merchants, and the sound objectives of all can be harmonized with the best interests of the owner through intelligent planning by experienced architects.

4) Single Purpose Buildings. Certain store types, such as department stores, major specialty stores (especially those handling higher quality merchandise), major restaurant operations, and food stores, are likely to ask for and even insist on single occupancy buildings. This stipulation is based in part on a desire to maintain the special identity of



The Key Tenants

the individual operation; it is also based in part on the specific requirements for exposure to parking.

One of the functions of planning is to harmonize these and other tenant objectives with a sound program for the developer, including the distribution of the customer pedestrian traffic created by these special purpose buildings in such a way as to provide maximum business for the center as a whole.

5) The Role of the Supermarket. Differences of opinion have developed concerning the role of the supermarket in the shopping center. That the presence of the supermarket in the neighborhood center is of prime importance both for the center itself and for the supermarket, is fairly obvious. In such projects there may even be justification for the inclusion of two supermarkets, since experience has shown that no one supermarket is capable of handling more than a limited share of the business available from the residents in the trade area.

In the larger or intermediate shopping center, the role of the supermarket undergoes a change and, in the very large regional project, it is doubtful whether it will achieve even as great an impact on the typical supermarket trade area immediately tributary to the regional shopping center location as it would in a smaller project at the same location. A supermarket located across the street from such a regional center may, in fact, achieve a higher volume of trade from customers residing within a two-mile radius of the location. This may be due to the greater accessibility and parking convenience in the separate location, as opposed to the congestion and greater walking distance involved in the typical regional parking lot. On the other hand, location within the regional center provides a "signboard" for the supermarket. In such a location the supermarket branch can count on a substantial volume of food business from customers who travel to the center from areas beyond the normal supermarket trade area. The supermarket within the regional center is therefore likely to achieve approximately the same volume as the supermarket in the same general location, but outside the center's boundaries. The nature of the business will be somewhat different and it is possible that the rental cost within the regional center may be somewhat higher than in the separate location. Supermarkets have in many cases taken the attitude that higher rental costs within certain limits are justified because of the institutional character of the publicity obtained by the regional center location, in addition to the business actually transacted.

There does, however, appear to be some question as to whether or not two supermarkets in a regional center are necessary or justified. The argument in favor of the two markets is based primarily on the competitive influence of the second market, and the likelihood that it will eliminate the possibility of poor service to customers of the center through inefficient operation of a single market. The argument against the inclusion of the second supermarket rests upon the resultant congestion in the parking area because of the characteristically greater requirements of markets (movement of pushcarts carrying purchases to cars at some distance, larger amount of parking traffic and quicker turnover); the problem to the customer of carrying supermarket purchases to a car parked some distance away; the fact that consumer studies indicate that a large proportion of supermarket buying is done on a separate shopping trip so that the purchase of apparel or other types of merchandise is unlikely at that time.

As with practically all questions in shopping center developments, there is no single answer to this problem. In the final analysis, the selection of the number and type of each class of tenant, and the solution to the question of effective use of single purpose buildings will depend upon the circumstances in each case.

6) Tenant Needs. The dissimilar requirements of various tenants must be taken into consideration in arriving at a fair rental and in discussing planning specifications. It will be observed, for example, that the vertical transportation requirements of tenants operating sales space on more than one level will be totally different from those operating on one level only. The nature of the solution of this and other related problems will vary not only with the type of tenant, but also with the relative bargaining strength of developer and tenant. This will depend in large measure on the strength of the location of the project and the presence or availability of other tenants, also on the volume of business expected from the particular store under consideration.

Generalities are likely to be as misleading in this field as in any other. From the above it will be seen that one cannot rely on a set of ready solutions, applicable to any tenant in a specific category. As a further example of this, certain chain store tenants expect and demand relatively complete stores except for trade fixtures. Other chain stores and many local tenants, particularly those who maintain their own architectural departments and have experience in the building of branches, may accept relatively unfinished space in order to finish it according to their own design and specifications. These variations in practice will be adjusted within the range of bargaining procedure between developer and tenant; and the extent to which the desires of each will be achieved, as well as the financial arrangements, will depend upon the strength of the location, not only in terms of its inherent advantages, but also by reason of the quality of the planning and the availability and interest of key tenants.

7) Availability of Tenant Types. Whether or not certain tenant types are available for a particular project will depend not only on the size of the project and the quality of the location, but also on merchandising practices and consumer buying habits in the city under consideration. Certain types of stores characteristically found in one part of the United States may not be encountered in another. An example is the notable rarity of millinery and men's hat

stores in Florida, and the relatively large number and variety of stores handling sports apparel for men and women in resort areas all over the United States.

Typical of the second qualification, concerning merchandising practices, is the variation in the proportion of department-store-type merchandise handled by different storekeepers in various cities of the United States. The following table is intended to indicate the extent of this variation, and the fact that the size and number of apparel stores available to suburban shopping centers depends not only on the extent to which department stores have developed a greater or lesser proportion of the market in each particular city, but also on the extent to which the department stores have developed suburban branches of either specialty type stores or full-line stores.

	Expenditure Category				
	Department Store	Variety	Apparel	Furniture and Appliances	TOTAL
New York	23.4	6.3	45.6	24.7	100.0
Chicago	38.3	5.9	35.1	20.7	100.0
St. Paul-Minneapolis	46.1	5.3	28.1	20.5	100.0
New Orleans	36.3	8.9	36.0	18.8	100.0
Seattle	50.6	6.2	24.1	19.1	100.0
Denver	45.9	7.1	22.4	24.6	100.0
Columbus	49.6	6.0	26.2	18.2	100.0
Nashville	35.7	6.9	40.2	17.2	100.0

Calculated from Standard Metropolitan Areas 1954 Census of Retail Trade.

Again, let us consider the camera store, the luggage sl sporting goods store, and other similar specialized op tions. In any one of these fields, a local merchant may control a very high proportion of the market and may therefore become very important to the shopping center as an operator of this particular store type. Conversely, the nonavailability of such a dominant tenant, or possibly the strength of the department store in that special line of merchandise, may rule out that particular kind of specialty store for the project. In still other cases such shops, though available, may be very poor tenant risks from the landlord's standpoint.

The economic study should be designed to indicate the desirability or otherwise of specific store types for the project in question. Such a study, to be of maximum usefulness to the owner, would probably include a consumer type survey. For cost reasons it would not be justified as a preliminary investigation of the site, but it is likely that it would be thoroughly justified before renting is undertaken because of its usefulness in improving the quality of the renting operation and raising the volume of business that may be anticipated.

Bearing in mind the qualifications discussed above, the following listing is intended to indicate the types of tenancies available for regional center purposes. The extent to which these store types would be included in smaller projects would depend upon the circumstances in each case.

TENANT TYPES

Food
- Supermarket
- Delicatessen
- Fish
- Bakery
- Candy
- Nut Shop
- Produce
- Meats
- Fruit Shop
- Dairy Products
- Carry Out Foods
- Beverage Store
- Health Foods
- Spices & Condiments

Department Store
- Major Department Store
- Junior Department Store

Variety

Apparel
- Women's Apparel
- Women's Specialty
- Women's Sportswear
- Dress Shop
- Women's Shoes
- Lingerie
- Foundations
- Hosiery
- Women's Accessories
- Bags & Gloves
- Millinery
- Furs
- Maternity
- Men's Wear
- Men's Shoes
- Custom Shirt Shop
- Men's Accessories
- Ties
- Youth Shop
- Teen Shop
- Children's Wear
- Infants' Wear
- Children's Shoes
- Family Apparel
- Family Shoes
- Casual Wear
- Beach Wear
- Cotton Shop

Furniture and Home Furnishings
- Furniture
- Appliances
- Draperies
- Lamps & Shades
- China & Glass
- Floor Covering
- Antiques
- Modern Design
- Pottery
- Radio & TV
- Interior Decorating
- Special Furniture
- Bar & Patio

Hardware
- Hardware
- Paint & Wallpaper
- Home Equipment (Do-It-Yourself)
- Plumbing Supplies
- Electrical Supplies

Drugs
- Super Drugs
- Drugs
- Pharmacy

Eating & Drinking
- Snack Bar
- Cafeteria
- Restaurant
- Coffee Shop
- Cocktail Lounge
- Fountain Lunch

Other Stores
- Gifts & Cards
- Religious Goods
- Art Supplies & Frames
- Music & Records
- Credit Jewelry
- Costume Jewelry
- Fine Jewelry
- Florist
- Fabrics
- Liquor
- Leather & Luggage
- Imports
- Perfume & Cosmetics
- Smoke Shop
- Tobacco & News
- Knit Shop
- Imported Lace & Linen
- Camera Shop
- Silver
- Stationery
- Sewing Machines
- Toys
- Stamps & Coins
- Party Supplies
- Sporting Goods
- Hobby Shop
- Game Room
- Tropical Fish Supply
- Pet Shop
- Auto Accessories
- Tires & Batteries
- Garden Shop
- Key Shop
- Lending Library
- Souvenirs

Services
- Barber
- Beauty Salon
- Shoe Repair
- Cleaner
- Laundromat
- Optometrist
- Reducing Salon
- Photographer
- Travel Agency
- Tailor
- Service Station—Gas & Oil
- Airline Ticket Office

Institutions
- Bank
- Post Office
- Loan Office
- Stock Broker
- Medical and Dental Offices
- General Office
- Insurance
- Real Estate
- Accountants
- Public Utility collection offices and display rooms

Recreational
- Theater
- Auditorium
- Bowling Alley
- Kiddieland

It will be observed that this listing includes not only retail tenancies, but service functions, such as beauty shops and shoe repair facilities; also such non-retail activities as banks, post offices, and similar activities designed to enhance the attractiveness of the project to the customer, as well as to produce maximum rental revenue.

PART I–CHAPTER 6

Financing

A—Requirements

A number of elements, both intrinsic and extraneous, will determine the extent to which satisfactory financing can be obtained for a shopping center, the principal ones being the following:

1) **Location.** The fundamental quality of the location and the likelihood that sufficient business can be attracted to the center to provide a profitable volume of business for the tenants. The quality of location would be shown by the market study (Part II, Chapter 2) and would depend on competitive factors as well as on population and purchasing power.

2) **Tenants and Rents.** The availability of suitable tenants prepared to pay satisfactory rents.

It sometimes happens that very strong locations cannot be developed regardless of their strength, as is the case where suitable tenants are not available because they are already located in competing projects, or because they are prevented by the existence of certain corporate policies.

3) **Economic Value.** The economics of the project expressed in terms of capital costs, prospective revenues from both guaranteed and percentage rents, the probable operating costs, including taxes, management expenses and promotion.

4) **The Developer's Investment.** When factors 1-3 are favorable and when the mortgage market is in a healthy condition, it is possible that the developer of a project may obtain 85-100% of the cost of the project (generally excluding land cost) in the form of a first mortgage at competitive interest rates and with suitable repayment conditions. Should these conditions not be present and if the mortgage market is in a period characterized by a shortage of funds, the extent of available first mortgage financing will be proportionately reduced.

Certain experienced investment institutions require that the developer make a substantial cash equity investment in addition to ownership of the land, as a condition of first mortgage financing, primarily in order to make certain that the project will have strong and interested management. This is often done regardless of the economic value of the project or the extent to which principal and interest requirements on first mortgage financing may be covered by revenue from executed leases after suitable allowance for expenses.

B—Types of Financing

Financing is basically of two types: mortgage financing and equity financing.

Mortgage financing, generally speaking, consists of either first or second mortgages at interest rates depending on the

availability of funds and the interest rate current in the market.

The equity investment may be represented by ownership of the land and cash investment on the part of the developer or, in the case of corporate ownership, may be represented by investment in preferred and/or common shares.

The proportion of capital invested in these various types of financing depends upon the factors indicated in the first section of this chapter and on the strength and financial policies of the developer.

Beyond these basic types of financing, certain special techniques have been developed to facilitate the financing of large projects of this character:

1) Split mortgages, by which prospective mortgagees may loan on portions of the project rather than on the project as a whole. (This involves special easements with respect to parking, delivery facilities and other common areas, but these have been worked out in actual practice so that they present no real difficulty.)
2) Participation in a single blanket mortgage by more than one insurance company or other mortgagee. (A variation of the device in the preceding paragraph by which two or more mortgagees may obtain a participation in a single blanket mortgage.)
3) Sale and lease-back by which the property may be sold to a prospective investor and leased back to the developer, who will guarantee a certain return on the capital investment in the project and may possibly agree to divide the surplus earnings with the investor.
4) Sale or ground lease of the land upon which the department store or any other principal tenant is located to such tenant; and construction of the building or buildings for the use of such principal tenant by the tenant himself rather than by the developer. (This has the effect of reducing the total investment to be made by the developer and relieves him of the construction work of a certain portion of the project.)
5) Ground leases, by which owners of property lease it to a developer on conditions which may permit the subordination of the ownership in the land to the mortgage; the extent to which such ground leased property may be suitable for typical first mortgage financing depends on the circumstances.

C—Sources of Financing

1) The Mortgage Broker. The most flexible source of financing is the experienced mortgage broker who will have up-to-date information concerning the availability of financing from insurance companies, pension funds, educational institutions, financing syndicates, and other corporations interested in the particular types of financing which, taken together, will be adequate for the capital requirements of the shopping center project.

2) Insurance Companies. Many of the insurance companies maintain regional mortgage offices which solicit financing for shopping centers and other projects directly from prospective owners. Direct application to one of these insurance companies may provide the solution, to the extent that first mortgage financing, or, in some cases, sale and lease-back financing, is required.

3) Pension Funds. Administrators of pension funds of certain department stores, industrial companies and labor unions are taking an increasing interest in the financing of commercial properties, including shopping centers.

4) Educational Institutions. These institutions are occasionally interested in investing their reserve and endowment funds in real estate projects, often in shopping centers.

5) Financing Syndicates. Syndicates of experienced real estate investors are often interested in taking partial ownership or full ownership of shopping centers and will provide the equity capital as well as the know-how required for development purposes.

6) Real Estate Companies. Various real estate corporations have been organized during the last fifty or sixty years, and especially during the last five or six years, which are specifically interested in the acquisition and development of shopping center properties. In some cases they are interested in acquiring a partial ownership in projects requiring equity capital or secondary capital to close the gap between available first mortgage financing and the equity in the owner's possession.

D—Timing

Prior to contact with financing institutions the project owner's investigation of his property is typically carried forward to the point where he has achieved a general grasp of the scope of the project and feels reasonably assured of the probability that it will proceed. This has been accomplished by means of a market study, exploratory architectural plans, and by contact with possible major tenants.

At this point, it should be possible to make preliminary estimates concerning the extent of the investment required and possible return. Such estimates should be made on the assumption that a development could be accomplished along the lines indicated by the market study and the interest expressed by the prospective key tenants.

Before undertaking a heavy leasing program or further architectural work, a preliminary survey of the financing requirements and the availability of funds should be made. The precise amount of equity required cannot be ascertained until the working drawings are prepared and the bids for construction have been obtained. However, a general estimate of the amount available should be possible

at a much earlier date, and equity capital requirements could at least be estimated.

The exact extent to which leasing must be carried forward before permanent financing can be negotiated will vary, depending upon the source of the mortgage financing; the strength of the project, including acceptance by key tenants; and the condition of the mortgage market.

In a majority of cases application for permanent financing should probably be made as soon as four or five of the major tenants are definitely available and when negotiations have reached the point where acceptance has been obtained from tenants who will occupy at least 50% of the space,whether formal leases have been executed or not.

It may require a minimum of from two to four months to negotiate the permanent financing commitment. These negotiations should be undertaken while other leasing is going forward and while preliminary drawings are being prepared.

If such financing is approved, a binding letter of commitment will ordinarily be issued by the lending institution, subject however to the performance of various conditions by the developer. This letter of commitment is suitable as security for obtaining temporary financing which should be arranged before the construction contract is signed.

In typical circumstances the first mortgage financing will not be paid out until two or three months after completion of the building of the project; thus, temporary financing through a bank or through a syndicate of banks must be negotiated against the security of the permanent financing commitment. Arranging temporary financing should be a relatively simple matter. It is a normal banking procedure —provided the developer is known to the bank, and provided satisfactory assurances of meeting the stipulations of the financing commitment and completion of the project are obtained. This may be in the form of a surety bond guaranteeing completion of the project without liens. Temporary financing should, however, be negotiated either at the time construction bids are called for, or certainly before the building contract is awarded.

E—The Mortgage Application

1) **Form of the Application.** Each institution has its own mortgage application form in which the bare essentials of the project have to be stated. In most cases, the developer will be required to provide a market study. He will always be required to provide architectural plans indicating the location of the stores, the dimensions of the project, the extent of the parking, and other factors, including the delivery system, together with a schedule of rents indicating proposed tenants, amount of space they will occupy, amount of guaranteed rent, and percentage rent terms. Also required is an abstract of the leasing program indicating the general nature of the leasing commitments, accompanied by the lease document proposed for use in tenant negotiations. In addition to this, the developer will ordinarily be asked to provide a profit and loss estimate indicating the amount of rent expected, together with the budget of expenses for the project and net income figures. These will be used by the financing institution to determine the economic value of the project after having been checked through the institution's own sources.

2) **Appraisal Procedures.** The project will be appraised by the appraisers of the financing institutions who may agree or disagree with the market study and rental estimates. In the final analysis it is the appraisal by the financing agency, whether for mortgage purposes or for equity capital, that will be the controlling factor in the decision of the institution as to whether or not it will provide the requested financing.

3) **Interest Rate.** Substantial fluctuations in interest rates have taken place over the past three or four years. Some financing commitments have been issued on first mortgage financing at 4 percent or less, while others, at a later date, have required 6 percent or more. This, however, has represented the range of fluctuation during this three or four year period, with present rates (as of November, 1958) being somewhere in the upper part of the range.

4) **Capitalization Rates.** Since the capitalization rate applied by the appraiser to the estimated net income largely controls the economic valuation of the project, the most economical construction consistent with preservation of the rental structure may provide the greatest amount of financing. This is due to the fact that depreciation on an economical building structure will be less than on an expensive one. Consequently, against the same rents, a higher loan may be obtainable on a less expensive building than on a more expensive one. It is possible, however, that this will be modified by the attitude of the appraiser, who may conceivably capitalize the income from the more expensive project at a slightly lower rate on account of the prospective longer life. There may also be the feeling on his part that the amenities provided by the higher cost project justify a lower capitalization rate. Part of the additional cost may, under these circumstances, be obtained in the form of additional first mortgage financing.

5) **Mortgage Documents.** We would like to stress the necessity for careful scrutiny of all preliminary commitments for financing to make certain that the terms and conditions are thoroughly understood. Of course, the final mortgage documents must be scrutinized with equal care.

F—Stipulations

1) **Credit.** Most insurance companies and other mortgagees are inclined to be influenced heavily by the amount of space that is rented to retailers with strong national credit, on the assumption that such renting will provide the maximum protection for the amount that is being loaned.

This insistence that a large proportion of space be rented to companies of high credit rating may appear to have a tendency to strait-jacket the developer; it necessitates his renting to companies of high credit regardless of whether local tenants or other tenants with lower credit rating would provide a better shopping atmosphere and a better complement of shopping amenities for the customer. It should be recognized, however, that the lending institutions are in the position of acting as trustees, and in that capacity must necessarily act with the utmost care.

2) **Minimum Requirements.** Many of the lending institutions operate under policies by which they will only issue a commitment when a minimum percentage of the space has been rented to satisfactory tenants and at satisfactory rentals, on leases the form of which the lending institution approves. They will similarly make a stipulation that the letter of commitment when issued is only binding provided a certain major amount of space, possibly 65 or 70 percent, shall have been rented within a period of six or twelve months from the date of the letter of commitment. They may also stipulate that before the funds are paid out possibly 85 to 90 percent must be rented.

Ordinarily the lending institutions will also stipulate the types of credit they are prepared to accept and the length of leases. Generally speaking, they will require the repayment of the loan within a term that corresponds to the length of lease by tenants of satisfactory credit occupying about 40 percent of the space, but on the further assumption that the department store has a thirty-year lease and that one or two other tenants of strong credit have leases of similar length.

The experienced mortgagee will ordinarily stipulate that a certain number of dollars of rent must be obtained from tenants of satisfactory credit with leases of not less than twenty or even thirty years and that other stipulated amounts of the rent must be obtained from tenants with leases of not less than fifteen years, and so on.

This requirement, dealing with the dollar rental, credit, and length of lease applicable to the tenants under consideration, will set up a concept of leasing which is very important in controlling the activities of the developer along these lines. Planning the leasing in order to insure a strong project of maximum dominance and flexibility over a period of years will, obviously, require intelligent application and foresight on the part of the whole planning team. This becomes very apparent when one realizes, for example, that within a certain number of years some of the tenants may be expected to develop a larger volume of business and will want to expand. It is generally desirable for the developer to consider the probable future needs of such expanding operations when negotiating the leases of adjacent stores, so that adjoining space will be available to the expanding stores.

3) **Negotiation Procedure.** Ordinarily the procedure is to make a mortgage application either through a mortgage broker or directly to the institution with which one proposes to deal. The institution will then appoint an appraiser who will make a physical inspection of the property and an appraisal of value against the background of his own concept of the strength of the market, the leases available, the types of tenants, the rents and the probable costs for taxes and management.

He will make a report directly to the mortgage institution without notice to the developer. Upon that appraisal report and upon the judgment of the lending officers in the institution, a recommendation will be made to its lending committee — a board of directors or a real estate committee — and the developer's application will either be accepted or rejected; or the developer will be invited to discuss the application with a view to arriving at terms in respect to interest rates and maturity — possibly also in respect to the amount of the loan and the stipulations that would be made before the application is finally accepted.

G—Collateral Issues

There are other matters that should receive the attention of the developer as he is planning his financing, such as:

1) Depreciation policies and their relation to the financing of the project, and the desirability of maintaining a cash flow after income taxes which will allow for repayment of financing obligations as they come due.

2) The tax structure, both federal and municipal, and the implications of both these forms of taxes as regards the investment quality of the project and the flow of cash.

3) The federal tax on corporations and the fact that the current tax rates ordinarily make the holding of real estate in corporate form relatively unproductive after the high depreciation rates have lost effect. (This may ordinarily be anywhere from seven to twelve years). Due to the implications of the federal tax on corporations, this factor should be examined carefully before the project is finally committed to corporate form.

4) The special financing available under certain federal regulations in connection with the development of urban renewal projects. The owners should look into the possibility that the shopping center-to-be may qualify under this type of financing.

Eastland Shopping Center near Detroit.
View of one of the pedestrian ports at Eastland Shopping Center near Detroit.
Architects: Victor Gruen Associates
Photograph: Alexandre Georges

PART II

PLANNING

Planning embraces manifold activities in the physical, economic, sociological and organizational fields.

PART II–CHAPTER 1

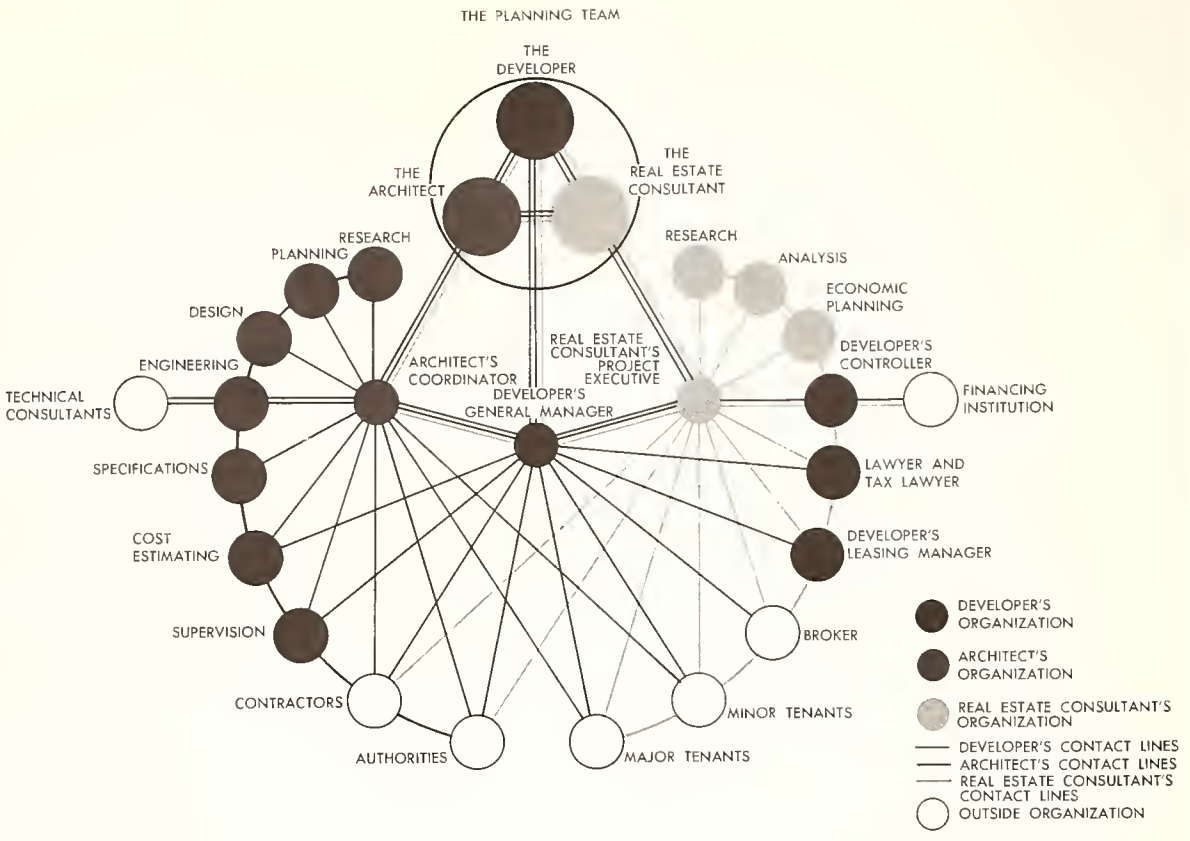
The Planning Team

We believe that the planning of a shopping center, like any other complex planning task, can be most successfully carried out by the establishment and consistent operation of a tightly knit, integrated planning team.

Depending on the size and complexity of the project, this team might, in neighborhood and intermediate centers, consist of the developer, the architect and, in some instances, a leasing consultant or lease broker. In projects of greater complexity and size, however, as in regional shopping centers, it may be important that an experienced consultant in real estate matters, well versed in shopping center economics, be added to the team.

In order to prove our point let us consider for a moment a case in which there is no such team. This is, of course, a purely fictional case and any similarity to dozens of actual cases is purely coincidental.

In our fictional case an inexperienced entrepreneur has bought a tract of land because he drives by it on the way from his residence to his office and has noticed that many other people also drive by the site. With the assistance of an acquaintance in an advertising agency, he develops a promotional brochure in which it is convincingly stated that his is the hottest site in the fastest growing county of the United States. He then asks an architect, who added a bedroom wing to his suburban home, to draw an artist's conception of a shopping center. Beset by the superstition that his architect, like architects in general, is just an artistic dreamer, he shields him carefully from all information concerning possible tenancy, traffic conditions, and any other unpleasant realities. Later on, under the pressure of some of the major tenants, he retains a traffic expert and a real estate consultant but he carefully guards against the possibility that his various professionals might get acquainted with each other. In his opinion this would only confuse them. He then retains a leasing broker, who proceeds to conclude the leases unaware of the activities of the specialists. He follows the old rule, "First come, first served." The day arrives when a sufficient number of leases have been closed and construction is about to start. The owner then discovers, to his dismay, that the architect's plans must be completely changed in order to fit the leases and that there is a huge discrepancy between the contractor's estimates and the real estate consultant's capital cost projection. He also is shocked to find that the income from rents, based on concluded leases, has not the slightest resemblance to the income projection of the real estate consultant and that the traffic expert's road requirements cannot be attained in the framework of the architect's plans. At this moment the developer logically concludes that all the professionals he has employed just don't know their business. He fires them all and starts construction, trusting his own judgment and the assurances of the contractor that everything will turn out for the best. Later on, the requirements of individual tenants cause a chain of extra costs; additional capital has to be obtained on second mortgage and when the center finally opens, business volume proves to be greatly disappointing. In due time the company holding the second mortgage takes possession



and the developer concludes that he has been a victim of the incompetence of experts.

Our legendary developer could, in all probability, have been the proud owner of a successful shopping center if he had selected qualified and experienced organizations for the task and if he had worked in close cooperation with them from the outset, before buying that fabulous site.

Thus, in the case of the inexperienced developer desiring to create a successful regional shopping center, the working team should consist of at least three permanent members: the developer as the initiating force, the real estate consultant to establish the economic basis and operational methods, and the architect to create the planning concept which gives the project physical shape and form. Each member, backed up by his own organization, must "know something about everything and everything about something."

Again, the entrepreneur sophisticated in real estate development may, depending on the scope of his project and the experience he brings to it, have little, if any, need for the services of the real estate consultant and this should be kept in mind in the discussion which follows.

The economist or real estate consultant who has full understanding of the problems of planning and architecture, the architect who fully comprehends the laws of economics and the owner who appreciates and gives careful consideration to both will make good teammates and their cooperative effort will be fruitful.

The qualifications demanded of team members and their organizations will, of course, be graded in accordance with the size and complexity of the task at hand. But even for the planning of neighborhood or intermediate shopping centers the highest qualifications will be beneficial. When it comes to the planning of regional shopping centers it is essential that all members have the highest qualifications.

The architect should by no means be a so-called "specialist." On the contrary, he and his organization must be versed in shaping all aspects of the human environment. That this should be so becomes obvious when one realizes that major shopping centers contain many building types such as office buildings, medical buildings, hotels, public buildings, transportation terminals, theaters, central power

plants, restaurants, community buildings and, in their surrounding areas, residential structures of every variety.

The architect must be able and experienced, not only in designing individual structures, but in shaping and designing the spaces between them. He must be fully equipped to understand and coordinate his work with the dozens of specialists who play a decisive role in shopping center planning. If he wishes to attempt regional shopping center projects, his organization must be of considerable size with a large core of experienced staff members representing every field of planning, design, and engineering. Even though he intends to work with special consulting firms in some cases, his own organization should have highly trained and experienced men representing every field involved. This enables the architect to develop a suitable concept and to coordinate his work meaningfully with that of the various specialists. Thus, the architect's organization should either embrace, or be closely connected with, a strong planning department, a store-design group, and men experienced in traffic planning, economics, landscaping, cost estimating and graphic design, in addition to complete architectural and engineering divisions.

The real estate consultant's organization must also be of the widest scope. It should include researchers and statisticians, market analysts, merchandising planners, financing experts, leasing specialists, and men experienced in store operations and real estate management. In some of these fields specialists may be called in; nevertheless, people with basic experience in these fields must be an integral part of the economist's office. The experienced economist has an essential reservoir of information at his disposal: population data, income statistics, leasing characteristics, and financing methods. He must also have a thorough understanding of planning and architectural proceedings, of construction methods and costs, of the principles of physical site requirements and traffic planning. (The developer and his organization have been introduced previously, see Part I, Chapter 2.)

The team, as far as regional shopping centers are concerned, should not be reduced in size below three permanent members; nor should it be enlarged beyond these three if it is to function efficiently and effectively. The three planning-team members should share full control and full responsibility. During various phases and for specific aspects of the over-all planning task they will enlist the assistance of specialists. Some of these might be members of the teammates' organizations, others may be independent consultants. Such temporary associates will be leasing managers, real estate brokers, lawyers (corporation, lease and tax), surveyors, market researchers, contractors, mechanical, electrical, and structural engineers, soil experts, foundation experts, landscape architects, traffic engineers, goods handling experts, estimators and so on.

The planning team should be established at the very inception of the project and should operate continuously throughout the planning and construction period until the shopping center is successfully established in its operation. The members must proceed in their work together, step by step, in synchronized fashion.

Inasmuch as each of the three team members represents a sizable organization it is desirable that each nominate a coordinator within his organization fully responsible for the particular project. Coordinators should be in constant contact with each other. Regular meetings should be held at least once a month, and in times of great activity at shorter intervals. All findings and decisions should be recorded.

During their close cooperation the team members should state their individual and independent viewpoints strongly, knowing that in an atmosphere of mutual respect and trust a system of give and take, of checks and balances, will evolve. Filled with the conviction that shopping center planning represents comparatively new problems, their over-all approach should be one of open-mindedness, giving ample opportunity for new ideas, for creativity and imagination.

PART II–CHAPTER 2

The Planning Schedule

Developing a shopping center cannot be done in a swift, breezy way, regardless of the fact that many announcements appearing in newspapers may give that impression. Typical of such an announcement is the following:

> The XYZ Company has purchased a 60 acre tract of land located on the corner of two of our busiest highways. Construction will start immediately, if zoning should be granted. It is expected that the center will be open in six months. It is rumored that a leading department store is interested in establishing a branch in the XYZ Shopping Center; however, its name cannot be disclosed. An architect is about to be appointed. The shopping center will be the largest in this part of the U. S. A. and will have parking space for 12,000 cars. There will be helicopter landing fields, moving sidewalks and many other innovations. The cost is rumored to be about fifty million dollars.

Such announcements are made for a number of reasons, primarily to discourage competition and to convince anyone else who might be planning a shopping center in the same general area that he hasn't a chance. Second, this free newspaper publicity is used to attract tenants; and third, it flatters the ego of the developer. However, in the long run, this kind of irresponsible publicity will not benefit the specific shopping center, and it will certainly be detrimental to the cause of shopping center planning as a whole, because it belies the facts.

Shopping center planning is a lengthy process in which all steps must logically follow each other. Impatient snap decisions may result in catastrophes. From the moment of conception, which means the moment when the idea of building the shopping center in a certain location is born, to the moment of opening the doors, considerable time must elapse. For regional centers this time interval will be three years in the most favorable cases, in average cases four years, and in cases where complications occur it might be as much as six to eight years.

Let us now discuss in some detail the phases of the project and the work that has to be performed by the separate planning team members. First, a tentative planning and construction schedule is outlined which may be divided into five main phases.

Exploratory Phase	Construction Phase
Preliminary Phase	Opening Phase
Final Planning Phase	

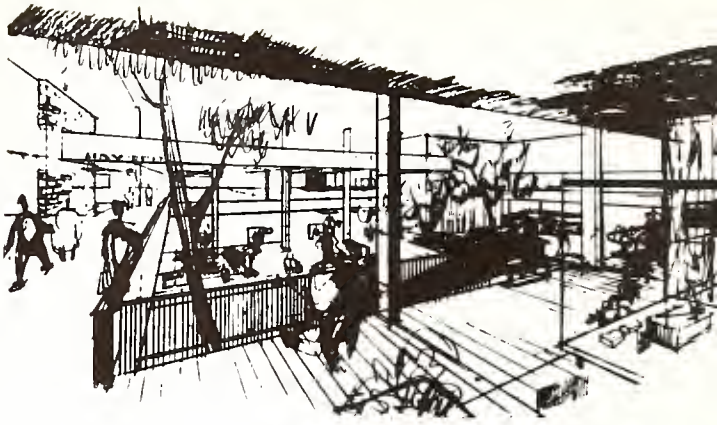
For regional centers, each of these phases and stages is likely to be clearly defined; for smaller centers the activity may be consolidated into fewer stages.

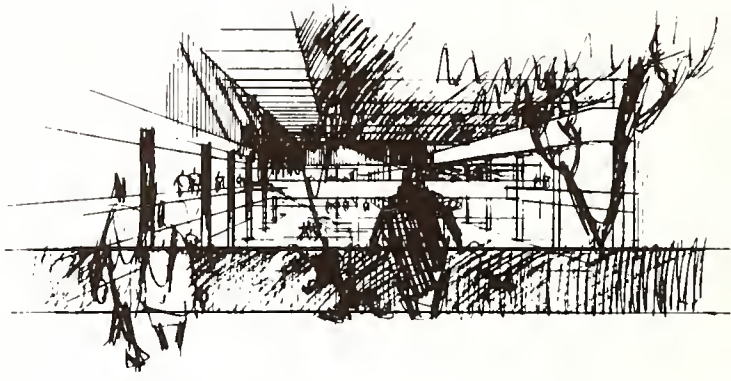
A—Exploratory Phase

"To be or not to be, that is the question" which must be answered during the exploratory phase. Because the answer might very well be negative, the developer often hesitates to invest a sufficient amount of time and money during this period. However, hasty or incomplete investigations by the planning team could have ruinous results. During the various stages of the exploratory phase all pertinent circumstances and conditions are thoroughly probed and the conceptual image of the shopping center is established.

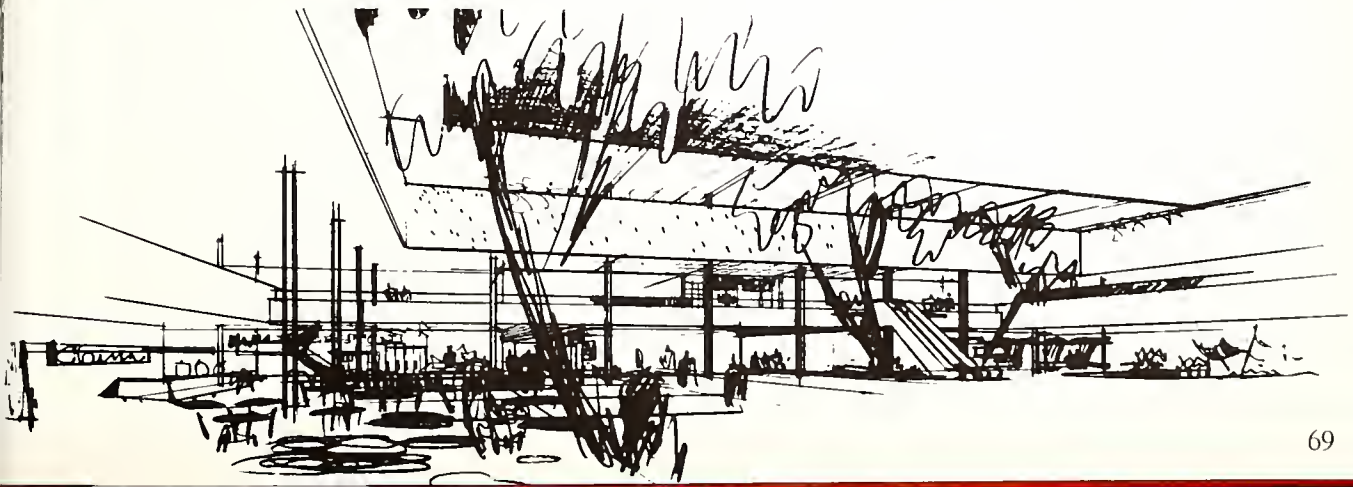
1) Feasibility Study Stage. Depending on circumstances, this first stage will start with a search for a location and within that general location for a site; or, if a site has already been decided upon, the study will begin by probing its suitability from the economic and planning points of view. Economist and architect will start by assembling all pertinent information and analyzing such research data. In the economist's case this will be directed toward arriving at the establishment of the business potential, with due consideration given to existing competition and the probable availability of key tenants. In the architect's case the physical suitability of the site and its accessibility will have to be proven. Good judgment, based on experience, will enable the team members to restrict their research and analysis during this stage to essentials and to avoid work on insignificant details, keeping in mind that their effort during this stage is only a means to the end of proving feasibility and not an end in itself.

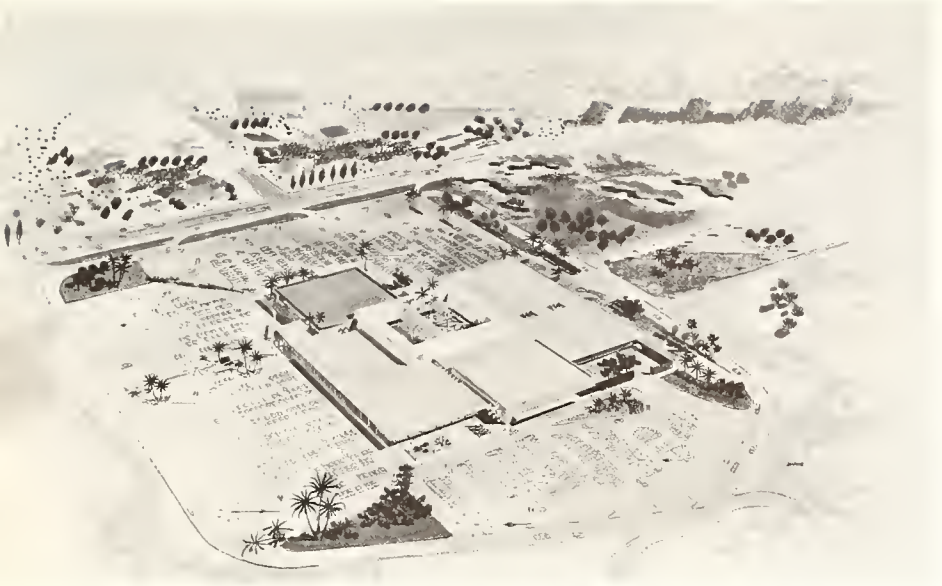
2) Conceptual Planning Stage. This is closely tied in with the Feasibility Study time-wise and function-wise. The conceptual image created at this time will be influenced by the results of the economic analysis but, by the creation of outstanding planning features resulting from an imaginative approach, may very well increase the attractive force of the center and thus modify the analysis of the business potential. Ideally, the work of economic analysis and architectural study should, at this stage, proceed in the most closely related manner possible.





Conceptual sketches developed during the Feasibility Study Stage for Southdale Shopping Center near Minneapolis. Architects: Victor Gruen Associates





Rendering developed for Presentation Stage. Maryvale Shopping City, Phoenix, Arizona.
Architects: Victor Gruen Associates

3) Presentation Stage. Once the team members have agreed conditionally on the results attained in the Conceptual Planning Stage, architect and economist document the results through an effective and easily understandable presentation, the third stage. The documents which are completed during this stage will consist of land usage plans, floor plans and basic traffic plans. Visualization of the project will be facilitated through a number of colored and black-and-white perspective renderings, including a bird's-eye view, views of the pedestrian areas and views from the surrounding highways. Most helpful are models which, in the case of complex schemes, may be built in such manner that sections or floor levels can be removed in order to give potential tenants a clear concept of the spatial arrangements of the center. Another product of the Presentation Stage will be a printed brochure containing all economic and planning data in clear and concise form. Armed with this material the planning team is ready to go on.

4) Development Stage. During this stage the concept will be influenced by exposing it to the various agents, institutions, and business interests whose assistance will have to be assured if the shopping center is to come into being. The cooperation of authorities will have to be obtained where problems of zoning, building permits, road construction and traffic control are concerned. Major tenants, especially the department store, junior department store, and supermarket, will be familiarized with the plan and the economic data, and a leasing commitment from the department store tenant, at least, will be procured. Financing institutions may be approached in order to determine the characteristics of the current market.

The developer's organization cooperates with the economic and legal advisors in establishing the corporate structure of the undertaking and in writing leasing documents and leasing specifications. The architect readies outline specifications and a preliminary cost estimate. Thus, at the completion of this stage the basic budget is available, guidance for leasing terms has been worked out, acceptance by the department store tenant is assured, general willingness of other major tenants to join the center has been manifested and all major features have been approved by authorities, such as the planning commission, the building department, highway department, etc. The shopping center is now ready to enter into the next phase.

B—Preliminary Phase

1) Adjustment Stage. The results of the preceding evolutionary period are now consolidated and incorporated into the presentation drawings. Negotiations with other major

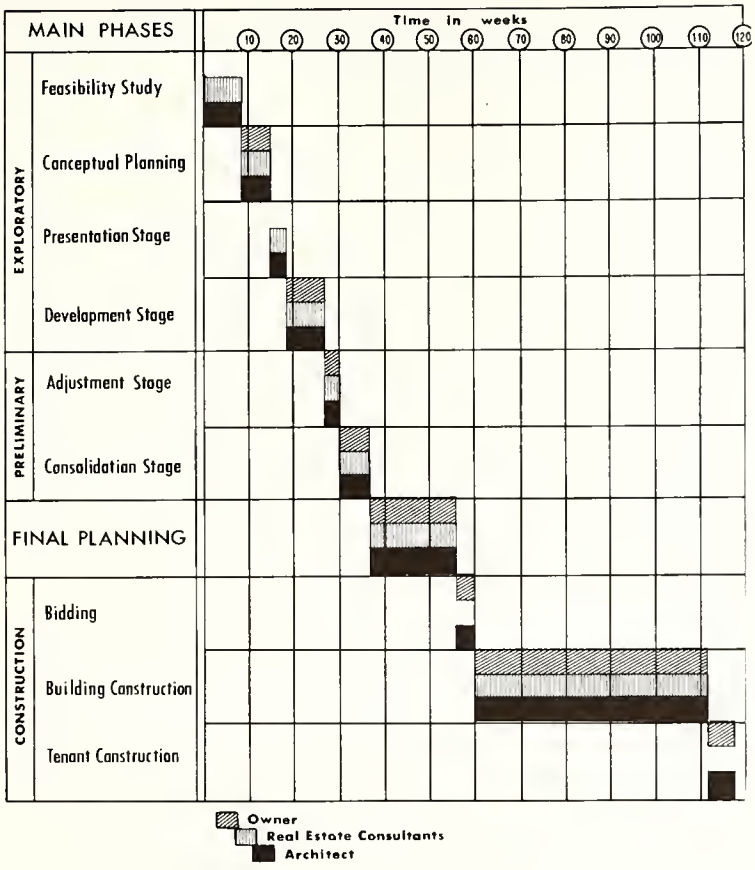
Models developed during Presentation Stage.
Bay Fair Shopping Center, San Leandro, California (above).
Southdale Shopping Center near Minneapolis (below). Because of the multi-level character, the model was so constructed that various levels can be lifted.
Architects: Victor Gruen Associates

tenants are entered into on the basis of a pre-merchandising plan for the entire center and any necessary adjustments are made. Negotiations with financing institutions and authorities may be continued.

2) Consolidation Stage. Economic and physical data are brought into final shape during this period. Leasing negotiations with a broad selection of tenants are undertaken. Preliminary drawings indicating all architectural and engineering aspects are completed. Preliminary specifications are written and a reliable preliminary cost estimate is arrived at, preferably in consultation with a general contractor. By the end of the Preliminary Phase, construction methods, material selection, engineering principles, and landscaping are fully established. All design elements are frozen so that the time- and money-consuming phase which comes next can be undertaken with a minimum of delays and changes.

C—Final Planning Phase

During this phase the developer closes leases for a substantial portion of the remaining space and completes the financing arrangements. A staff for the vital work of planning coordination with tenants is employed and trained. The architect translates preliminary plans into complete



A theoretical planning schedule based on minimum time requirements.

working drawings and specifications, thus establishing a reliable basis for competitive bidding and for construction. Final building permits are obtained and invitations to bid are written.

D—Construction Phase

1) General Building Construction. Bids are called for and contracts are awarded. The length of the bidding period depends on the size of the project, but it should be borne in mind that too brief a bidding period may rob the developer of the advantages to be gained by carefully calculated competitive bidding.

During the Construction Phase the shopping center plan takes three-dimensional form. The duration of this phase depends on climatic conditions (it is, of course, possible to build faster in a mild climate than in a cold one) and on other circumstances outside the control of the planning team as well as of the contractor, such as material shortages, strikes, etc. Scheduling the entire planning process, especially during the Construction Phase, is often strongly influenced by the desire to open at the start of an important business season, such as two or more months before Christmas or two months before Easter. However, it is wise to be extremely conservative in the scheduling of construction because it is in this phase that uncontrollable factors are most likely to appear. Over-optimistic scheduling is likely to require expensive overtime work for which, as a rule, no allowance has been made in the construction budget or financial plans.

During the Construction Phase the architect is engaged in general supervision, supported by clerks-of-the-works

who are usually retained by the developer. The architect also chooses materials, selects colors, and integrates landscaping as well as works of art, etc. Developer and economist are both active in completing the leasing, in welding the operational apparatus of the shopping center into its final shape and in preparing for the day of opening.

2) Tenants' Buildings — Interior Construction. This phase of the project commences when the basic construction work is essentially finished. It could justifiably be referred to as "the forgotten phase."

The desire is, of course, to have as many stores as possible ready and in operation on opening day. However, each tenant not only has to furnish and decorate his store, he must also acquire, display, and store his merchandise as well as hire and train personnel before the store is ready for operation.

Shopping center management also urgently needs this period, for it is during this phase that the center's technical apparatus is geared for full operation. Personnel for central heating plants and air-conditioning plants, for traffic police work and maintenance must be trained. If insufficient time is allowed for such preparation, the shopping center will open while work is still going on in a number of stores, and management will have no reasonable certainty of smooth operation during the opening days. Opening week customers may come with great expectations — only to be driven away by traffic jams and bad handling of parking arrangements; they will be sorely disappointed by the incompleteness and inefficiency of the center.

E—Opening Phase

The next and final phase is the opening, which we discuss in detail in Part III of this book.

Any attempt to estimate time periods necessary for each phase and thus for the entire planning and construction period is difficult because of fluctuations in the size and complexity of projects, availability of major tenants, availability of financing, climatic conditions and many other circumstances. The following tabulation gives time ranges for regional projects proceeding under normal conditions:

A	*Exploratory Phase*	
	Feasibility Study	8 to 12 weeks
	Conceptual Planning Stage	4 to 6 weeks
	Presentation Stage	4 to 8 weeks
	Development Stage	10 to 30 weeks
	Total Time Span for Exploratory Phase	26 to 56 weeks
B	*Preliminary Phase*	
	Adjustment Stage	4 to 10 weeks
	Consolidation Stage	6 to 12 weeks
	Total Time Span for Preliminary Phase	10 to 22 weeks
C	Total Time Span for Final Planning Phase	20 to 30 weeks
D	*Construction Phase*	
	Bidding	4 to 6 weeks
	General Building Construction	52 to 100 weeks
	Tenants' Building — Interior Construction	6 to 8 weeks
	Total Time Span for Construction Phase	62 to 114 weeks
	Total Time Span for Planning and Construction	118 to 222 weeks or 27 to 51 months

For intermediate centers of from 100,000 to 300,000 square feet the total time span is likely to range from 18 to 40 months; for neighborhood centers the time span, depending largely on tenant availability, is likely to range from 12 to 24 months.

The chart indicates a work and time schedule for a theoretical regional shopping center, denoting also the work to be done during each phase by the team members. It may look over-complicated and the time indicated may seem too long to the inexperienced reader. However, the experience of the authors has indicated that a realistic understanding of these phases of the work will result in a saving of time.

PART II–CHAPTER 3

Planning the Site

The architect's work starts with the planning of the site. For this task he must have at his disposal the findings of the economic analysis which establishes the total rental area that can be supported by the shopping potential, broken down for various main merchandising categories. He must have some idea of other uses to which the land should be devoted. He should at least have an inkling of probable zoning problems. On the basis of feasibility studies he has a general idea of traffic and accessibility conditions. He has full information about physical conditions of the site including a topographic survey and, as a result of test borings, about soil conditions. In many cases he also knows the basic requirements of the potential major tenant or tenants.

Armed with this information he begins planning by carefully allocating portions of the land to specific usages. These fall into seven basic categories:

1) Structures
   a) Structures for retail purposes (retail areas).
   b) Structures for service purposes (heating and air-conditioning plants, electric substations, maintenance shops, truck roads, loading docks, equipment storage, etc.).
   c) Structures for other commercial usages (offices, recreational facilities, etc.).
   d) Structures for public usage such as civic and social facilities (community center, auditorium, exhibition space, children's play areas, etc.).

2) Car Storage Areas
   a) Surface parking lots.
   b) Double-deck or multiple-deck garages.

3) Pedestrian Areas
   a) Malls, courts, lanes, plazas.
   b) Covered pedestrian areas, such as public corridors, covered malls or courts, etc.

4) Automobile Movement Areas
   a) Distribution road system on site.
   b) Magazine roads, etc.

5) Public Transportation Areas
   a) Bus roads, bus terminals, taxi stands, etc.

6) Buffer Areas
   a) Landscaped areas separating car storage areas or service areas from the public road system, or areas separating parking areas from each other or parking areas from service areas.

7) Reserve Areas
   a) Portions of site to be held in reserve for the planned growth of the shopping center.

Site Planning Principles

The allocation of space for these and possible other usages should be guided by certain planning principles in order to attain the highest feasible productivity of the land over an extended period of time: 1) to safeguard surrounding areas against blight; 2) expose retail facilities to maximum foot traffic; 3) separate various mechanized traffic types from each other and from foot traffic; 4) create a maximum of comfort and convenience for shoppers and merchants; 5) achieve orderliness, unity, and beauty.

1) Safeguarding Surrounding Areas. The areas surrounding the shopping center have a strong influence on its economic health. Obviously, economic success cannot be maintained over a long period if planning does not take into fullest account the protection of these areas, usually preponderantly residential, which surround it. The desperate plight of some of our existing retail facilities in downtown areas is, to a large degree, the result of the deterioration of residential areas surrounding them, which in turn is directly traceable to lack of planning, or to poor planning. Similar occurrences are clearly detectable in some suburban shopping areas, especially those usually referred to as "strip developments." There are many cases in which the initially existing economic potential has been severely damaged or destroyed by the growth of blight conditions over ever-spreading portions of adjacent land. In order to prevent such neighborhood deterioration (see Part II, Chapter 4) the greatest care must be exercised to achieve the following: a) protection against infiltration of commercial traffic into residential streets; b) protection from noise created by commercial activities; c) protection from unsightliness often created by blatant signs, rear elevations of buildings, loading docks, alleys, mechanical equipment of all types, dangling wires, disorderliness, trash, etc.; d) protection from fumes and smells.

The most effective way to safeguard residential and other areas that surround a shopping center is to incorporate such areas, from the start, within the planning concept of the project.

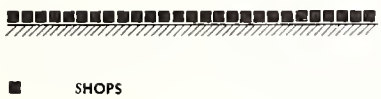
2) Exposure of Retail Facilities to Maximum Foot Traffic. A second planning principle is based on recognition of the fact that exposure of all individual stores to the maximum amount of foot traffic is the best assurance of high sales volume.

This simple truth has unfortunately gone into oblivion. Suburban business real estate often has been evaluated on the basis of passing automobile traffic. This evaluation overlooks the fact that automobiles do not buy merchandise. Only after the driver of even the most expensive car leaves it and becomes a pedestrian is he converted into a potential buyer. Thus, if shopping centers are to be prosperous, dense foot traffic will have to be recreated. Proper appreciation of this fact leads the planner forcibly to an arrangement of all commercial facilities in a compact grouping. Such compactness encourages walking between stores because of their proximity to each other and because it offers the possibility of uninterrupted window shopping.

Within a shopping center we are confronted with two distinctly different types of foot traffic. The first type, the result of walking from automobile parking areas toward the compact building grouping, has an indirect effect on business activities. It is the second type, which we shall call *shopping traffic*, to describe walking from store to store, that creates the very lifeblood of a shopping center; its proper circulation assures business success. The term "shopping" means comparing prices, styles, and qualities of merchandise as well as purchasing merchandise in various retail establishments.

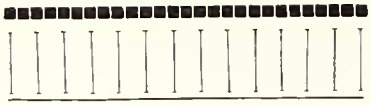
Let us consider site planning as it relates to foot traffic. In judging the merits of the case studies which follow, it should be kept in mind that each one of them might be advantageous if related to a favorable set of circumstances, of which the size of the center, shape of the site, and character of tenancy are the most important.

Case Study A. The center is camprised af a row af stares, 2,000 feet alang the highway. The shapper parks at the curb in frant af a stare, walks into the stare, transacts his business, walks aut again, is likely ta enter his car and drive aff. In this case pedestrian traffic af the secand type, shapping traffic, is limited.



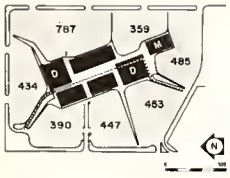
A row of stores along the highway.

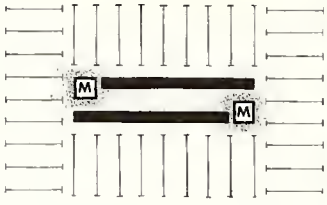
A well executed strip center with curb parking. Photograph: Gordon Sommers



Stores moved back from the highway permit parking in front.

Strip center with off-street parking. Photograph: Gordon Sommers





The strip is divided into two rows of stores, opposite each other, along a pedestrian mall with parking on each side. A magnet is placed at each end.

Glendale Center, Indianapolis.
Architect: Victor Gruen Associates
Architects for Block Department Store: Pereira and Luckman
Consultants: Robert E. Hattis, Engineering; Larry Smith and Company, Economic
Photograph: Capitol Photographers

Case Study B. The 2,000-foot-long row of stores is moved back from the highway sufficiently to permit parking in front. Sidewalks, or even covered walkways, encourage foot traffic along the store fronts. This is obviously vastly superior to the first case, as the driver may be converted into a pedestrian some distance away from the entrance door to a specific store, and thus a certain amount of shopping traffic will be created. However, this shopping traffic will still be limited. A distance of 2,000 feet between the extreme ends of the store strip is not conducive to inter-shopping. Having made one purchase the shopper will in many cases return to the car and drive to the store that is next on his list. Besides the disadvantage of the distance between retail units, the sidewalk, which immediately adjoins a parking lot which in turn immediately adjoins a highway, does not represent an attractive walking environment. Even if two powerful magnets, let us say a department store and a junior department store, were to be located at the extreme ends of the 2,000-foot-long shopping strip, the amount of foot traffic generated in the area between them which would require passing intervening stores, would be limited and only a few merchants would benefit.

The two foregoing case studies can be characterized as "extroverted" types. They turn their faces toward parking areas and the highway. Their backs, all too often unattractive, are turned toward service roads and residences which adjoin them directly.

Case Studies C and D which follow could be dubbed the "Janus," or double-faced type. One of their faces is directed toward the parking area, the other toward the pedestrian malls. Case Study E establishes a link between the "Janus" type and the "introverted" type to be discussed in Case F.

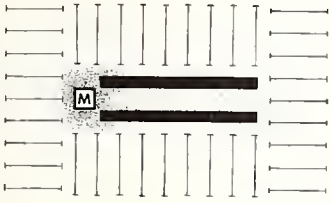
Case Study C. The 2,000-foot store-strip is divided into two halves, creating two 1,000-foot-long strips arranged opposite each other along a pedestrian mall with parking on each side. In this case shopping traffic will be much greater for several reasons:

1) A highly desirable pedestrian area shielded from the noise, smells, confusion and dangers of automobile traffic is created.

2) The two main magnets will be only 1,000 feet apart if placed at extreme ends; therefore the likelihood of interchanging shopping traffic will be much greater and stores located between the two magnets will profit from participation in that traffic.

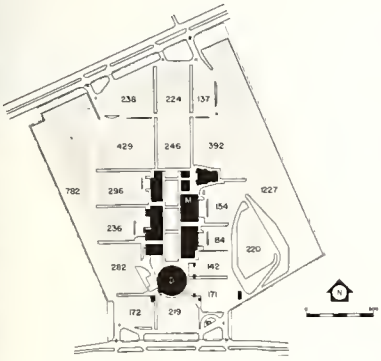
If, on the other hand, only one main magnet exists and that is located on an extreme end of the mall, then shopping traffic will be reduced because of lack of interchange. Stores furthest removed from the magnet will participate only to a very slight degree in the traffic generated by the main magnet.

Case Study D. This is a mall arrangement as in Case Study C, but because there is only one main magnet, it is moved to a center position on one side of the mall. Shopping traffic will be improved if compared with Case Study C.



Mall center with only one magnet.

Mall Center with one magnet. Shoppers' World, Framingham, Massachusetts. Architects: Ketchum, Giná and Sharp



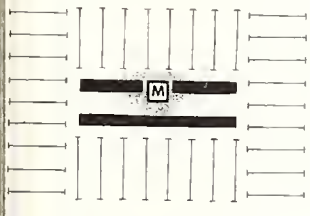
Plan of Shoppers' World, Framingham, Massachusetts.

SHOPS

PARKING

M MAGNET

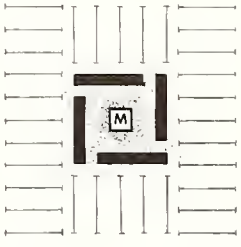
FOOT TRAFFIC



Mall center with magnet centrally placed.

Northgate Center, Seattle, Washington. Note centrally placed main magnet.
Architects: John Graham

Northland Center Near Detroit, a cluster type arrangement with main magnet centralized. Architects: Victor Gruen Associates. Associate Architects & Engineers: H. E. Beyster Corporation. Consultants: Larry Smith and Company, Economic; Lloyd B. Reid, Traffic. Photograph: York Photographic Studios



The cluster type arrangement.

Plan of Northland Center.

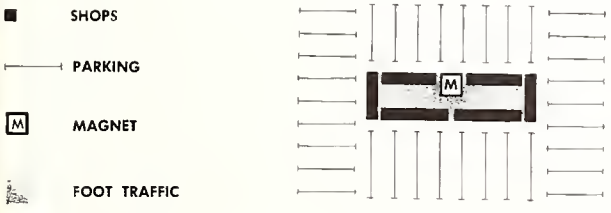
Case Study E. The major tenant is placed in the center of a cluster arrangement. Nearly all stores thus become neighbors of the most powerful shopping-traffic puller. In contrast to previously discussed cases where all retail units were exposed to parking traffic and shopping traffic, this arrangement exposes the main tenant to shopping traffic only. Because of the superior pulling power of a major department store, this results in no detriment to its business but offers the opportunity of guiding shopping traffic from parking areas along the frontage of other stores toward the center of the cluster.

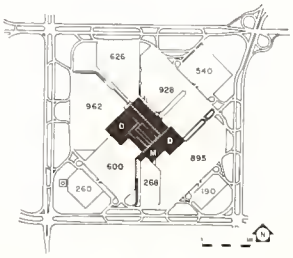
Case Study F. This case exemplifies what we will call the introverted center. All store fronts are turned toward the inside of the building cluster. The structures turn their backs to the parking areas and the surrounding roads. Shopping centers following planning principles of this type diminish or completely exclude the possibility of entering individual stores from the parking lot. Shopping traffic is, by plan, funneled through a limited number of entrance arcades into pedestrian areas. Thus density of shopping traffic may be markedly increased and the opportunity to plan its direction and flow increased.

These case studies have shown how site planning can influence the quantity of shopping traffic. We have only touched on methods by which it can be directed and how its fullest buying potential can be realized. This is such an important and complex matter that we will discuss it in a separate chapter (see Part II, Chapter 7).

Structures other than merchandising units also create foot traffic and their placement must be considered carefully. The location of bus stations and taxi stands plays an important role in this respect. Equally important is the proper location of community facilities, exhibition areas, children's playgrounds or "kiddielands," restaurants, and all other features which will attract foot traffic. In the case of centers with two-level or multi-level merchandising activities, the strategical location of elevators, escalators, stairways, is

The introverted center. The photograph and the plans are of Southdale Shopping Center, near Minneapolis. Architects: Victor Gruen Associates. Photograph: Chester Freden





Bus stop and taxi stand in Southdale Shopping Center near Minneapolis.
Architects: Victor Gruen Associates
Photograph: Infinity, Inc.

Restaurant in Eastland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Alexandre Georges

Similarity between department store and shopping center. Above, Printemps Department Store, Paris, France. Below is the Garden Court at Southdale, near Minneapolis.

significant. Not only the location but also the direction in which the escalators move plays a major role in planning shopping traffic.

It has often been said that a shopping center is actually a department store in which various departments are placed in separate buildings. The truth of this statement, even though it is an oversimplification, becomes even more apparent in centers with covered pedestrian areas because of their resemblance to early department stores built around a well. Thus it is not surprising that lessons learned in the planning of department store foot traffic should also be applicable in planning foot traffic for a shopping center. For instance, in department stores the location of stairways, escalators and elevators is given the greatest consideration. Even the location of such service facilities as restaurants, customers' lounges, the lost and found departments and other service departments is carefully planned in a manner to guide foot traffic through as many departments as possible. Restaurants in department stores are usually located on an upper floor in order to attract traffic to upper floor levels.

Even more important are the lessons to be learned from observation of the merchandising pattern which has developed in our downtown sections by the normal long-range generic process of free competition.

3) Separation of Various Traffic Types. Specially designed areas, wholly separated from each other, must be allocated to private automobile traffic, public transportation, service traffic and pedestrian traffic (see Part II, Chapter 6).

Let us first review non-separated and therefore undesirable methods of service arrangements. In the typical suburban strip development of recent vintage, store fronts are

Both customers and trucks arrive at the rear entrance.
Photograph: Gordon Sommers

The customer goes in where the garbage goes out.
Photograph: Gordon Sommers

In spite of the large entrance sign, the lady wonders how to get into the store.
Photograph: Gordon Sommers

arranged along the public highway and parking areas exist, if at all, at the rear of stores. Inasmuch as customers arrive by automobile, this rear entrance becomes the main entrance to the store, the street entrance assuming in some cases a purely symbolic meaning and representing principally a leftover from the horse and buggy days. All service functions are also performed in the rear of the store, where storage and loading facilities are located. Thus trucks and passenger vehicles vie for space and the customer goes in where rubbish and garbage go out. In many cases, customers are funneled through a narrow passage to enter at the tail end of the sales area.

The improved strip plan placed the parking in front of the stores. Thus it is possible to take care of all service functions in the rear. Functionally this spells a tremendous improvement; however, this arrangement, like the previous one, has a blighting effect on surrounding residential areas because it confronts them with ugly and disorderly views of service yards, trucking roads, etc.

The separation of pedestrian areas from transportation areas is one of the cornerstones of good planning. Transportation areas require considerable space within which the movement of vehicles of various types can be accomplished as effectively as possible. It is inherent in the character of transportation areas that a certain amount of danger, noise, fumes, confusion and distraction is created within them. These characteristics result in tensions and feelings of anxiety in the shopper which distract him from the task at hand: the business of shopping. Noises, fumes, odors and the constant movement of vehicles are likely to destroy or certainly diminish the attainment of a psychological climate conducive to shopping enjoyment.

It is obvious that the degree of completeness of the separation between transportation and pedestrian areas depends on the size of the shopping center. In a single commercial building, this separation becomes effective only when the customer finds himself within the doors of the store. In the case of two buildings, it may be possible to arrange a separated pedestrian area between them. In the case of a neighborhood center, the chances to create separated pedestrian areas are slightly higher and they increase greatly in the case of an intermediate center. In a regional center the possibility is almost always at hand and should be fully utilized. However, even in a neighborhood center separated pedestrian areas can be created as, for example, by the small plaza in Pala Shopping Center (see illustration).

Shoppers cross traffic areas at their own peril.
Photograph: Gordon Sommers

Landscaped pedestrian area in a neighborhood shopping center. Pala Shopping Center, San Jose, California.
Architects: Victor Gruen Associates
Photograph: Morley Baer

Pedestrian walkway, neighborhood center. Waialae Shopping Center, Honolulu. Architects: Victor Gruen Associates Photograph: Camera Hawaii

Screen wall conceals parking area from pedestrian court. Eastland Center, Detroit. Architects: Victor Gruen Associates Photograph: Alexandre Georges

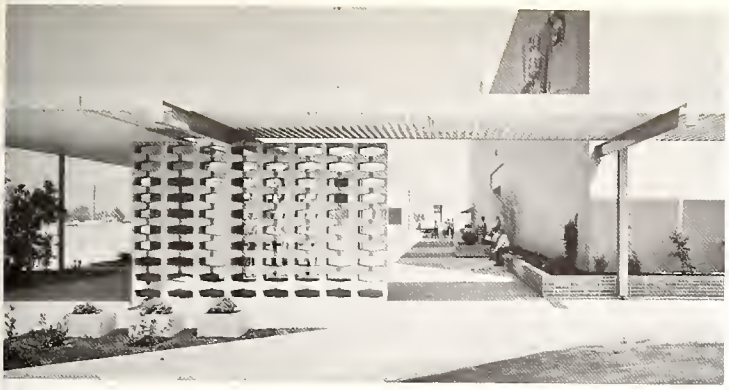
Even in the smallest grouping of stores it is possible to achieve a certain amount of separation by means of broad sidewalks with landscaping, low garden walls, etc.

In large shopping centers some separation for pedestrian traffic can even be achieved within the transportation areas. Walkways within the parking area with planting on both sides or even covered walkways can be introduced.

The isolation of pedestrian areas from transportation and parking areas can be made visually effective by various means. In Northland and Eastland centers the view of parking areas from malls is partially obliterated by screen walls. Concrete block screens are used in Valley Fair. The most complete demarcation is probably realized in Southdale, Wildwood, and in Westchester Terminal Plaza* where entrance doors mark a definite separation between transportation and pedestrian areas.

Service traffic in shopping centers represents a considerable portion of mechanized traffic. Even in the smallest shopping center, service vehicles for deliveries, pick-ups, garbage and trash collection, repair crews, construction and

*In the planning stage.



Left
Concrete block screens at Valley Fair, San Jose, California.
Architects: Victor Gruen Associates
Photograph: Morley Baer

Below
Doors separate transportation and pedestrian areas in Southdale, near Minneapolis.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

Service Court is well concealed by screen wall in Woodmar Center, Hammond, Indiana.
Architects: Victor Gruen Associates
Photograph: Hube Henry, Hedrich-Blessing

Even in a small shopping center, service facilities can be well screened.
The Boardwalk, Tiburon, California.
Architects: John Lord King
Photograph: Dean Stone-Hugo Steccati

fixture contractors, trucks of utility companies, etc., create a significant portion of over-all traffic.

The degree and methods of accomplishing separation between various types of traffic depend on a large number of existing conditions. Basically, the following solutions are possible:

Service areas on merchandising level in the form of truck roads, service courts, and other types of loading facilities are acceptable in neighborhood and intermediate centers and in regional centers when necessitated by ground conditions or other considerations. Good planning principles demand that such areas be properly shielded by screen walls or landscaping and that service vehicles can enter or leave with no interference from automobiles or pedestrians.

Service areas on non-merchandising levels permit the most productive space which, in most cases, is also the most expensive to construct, to be totally freed from service functions. Only the large center can achieve this and there are a number of ways to do it:

The truck tunnel is a frequently used term but only a very small number have been constructed. It is an underground tunnel dug beneath the shopping center mall; its construction is achieved by concrete retaining walls, floor and roof slabs. Later on, as stores are constructed, openings between store basements and the truck tunnel are broken through. Such truck tunnels exist in Lakewood Center, Los Angeles, and in the Broadway-Crenshaw Center, Los Angeles.

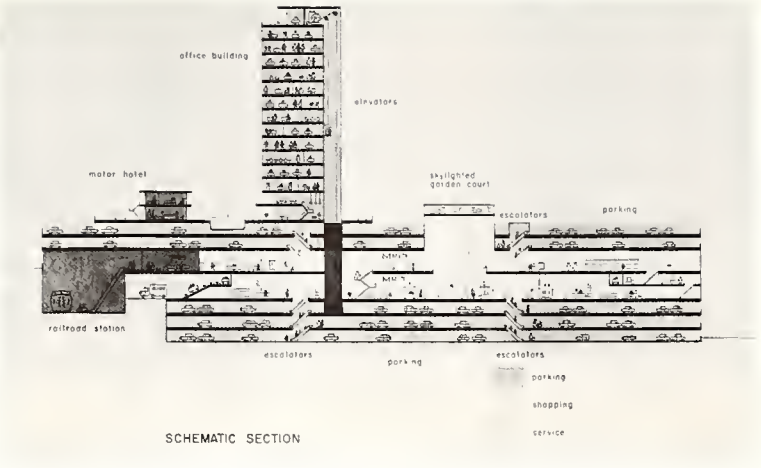
Service roads located in basement areas are ramped down to the basement level. The service road then occupies a portion of the over-all underground level. This is a solution employed in a large number of regional centers. (For example, Northland and Eastland, Detroit; Garden State Plaza and Bergen Mall, Paramus, New Jersey.) In contrast to the truck tunnel, the truck road located in a basement area does not require exceptional construction work. It only occupies space within a comparatively low-cost portion of the entire shopping center structure.

Service roads located on other levels such as where a high water table or other unusual ground conditions make the construction of basements impractical. In such cases service and storage areas are arranged on levels above the merchandising floors. In this case the service road is ramped up from street level to the upper level. (Examples: Bay Fair, San Leandro, Calif., Lloyd Center, Portland, Oreg., the projected Westchester Terminal Plaza, New Rochelle, N. Y.)

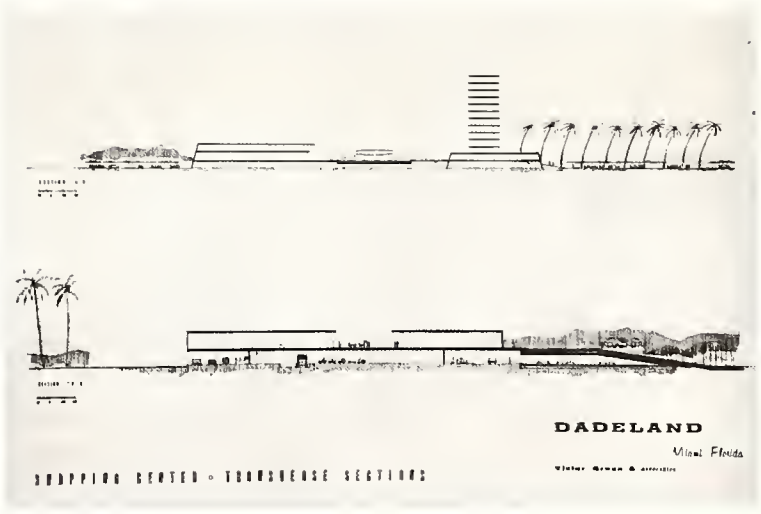
Truck road entrance, Southdale, near Minneapolis.
Architects: Victor Gruen Associates
Photograph: Infinity, Inc.

Truck road, Northland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: York Photographic Studios

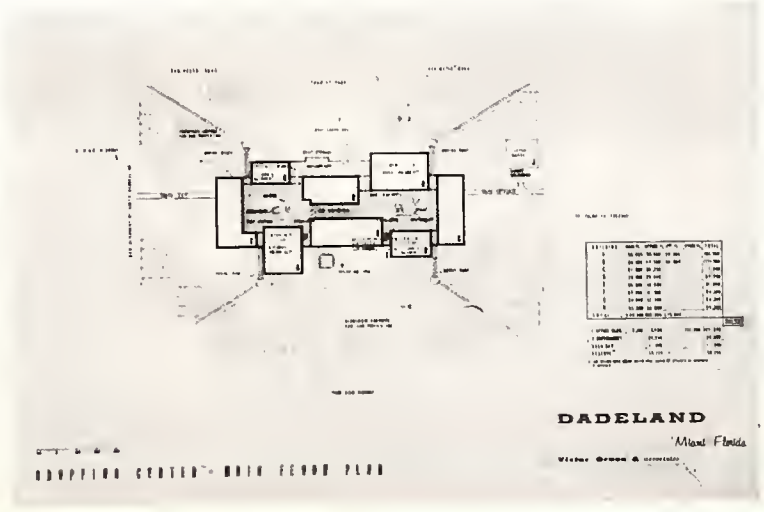
Westchester Terminal Plaza Project (in planning stage) envisages service facilities for all stores on mezzanine located between upper and lower merchandising levels. A central loading platform from which merchandise is distributed on moving belts is projected. Westchester Terminal Plaza, New Rochelle, New York.
Architects: Victor Gruen Associates



SCHEMATIC SECTION



Project for Dadeland Shopping Center, Florida (not yet executed) had to take a high ground water level into consideration. The entire center is to be raised by one floor, utilizing the base structure for service and loading facilities. The terrace is approachable from the parking area by inclined moving sidewalks.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers



Weather protection at department store entrance. Valley Fair, San Jose, California.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

Covered arcade with skylight. Valley Fair, San Jose, California.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

Sun and rain protection along show dows of stores on left side. Note that s windows of department stores which not continuous are also protected. Va Fair, San Jose, California.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

4) **Maximum Comfort and Convenience.** The planner must strive to provide maximum comfort and convenience in all areas of the project: convenient access and exit arrangements for automobiles from the public highway to the site, convenient arrangements for reaching the parking areas within the site, convenient parking space located as close as possible to shopping center structures, convenient, comfortable pedestrian areas (which means protection against sun, rain, wind, as well as excessive heat and cold) and finally, convenient, comfortable store areas.

5) **Unity, Orderliness and Beauty.** The concept of unity, order and beauty is a major planning principle. The appearance of all component elements must be subjected to this criterion; it must be applied to every major and minor aspect and must permeate all architectural expressions. Landscaping, signs, the architecture of structures, architectural treatment of spaces between structures, composition of structures in relation to each other, colors and materials, all must adhere to this vital principle.

All of the planning principles discussed above should be deeply ingrained in the consciousness of the planner; he must consistently act in accordance with them. A good site plan will offer endless design opportunities; a poor one will prove a serious handicap to the design of the structures and the over-all treatment of the center.

Although it should be clearly understood that even the most rigid application of these planning principles will not create a business potential (this depends on the prerequisites discussed in Part 1), nevertheless it will lead, over an extended period of time, to the fullest utilization of an existing potential. A disregard or misdirected application of these principles * could result in poor utilization of an existing potential. Take the case of a poorly planned shopping center in an area of high business potential. In all probability this would establish an open invitation for competitors to make better use of the given opportunities and to construct a superior shopping center within the influence area.

It is now possible to draw some definite conclusions as to what adherence to these principles will bring forth in the way of planning for the shopping center site and surrounding areas:

Exposure to maximum foot traffic, as we mentioned before, will lead to the concept of compactness. The separation of various traffic types will make mandatory a basic concept in which car storage areas surround the compact grouping of structures on all sides. The planning principle of achieving maximum comfort will, in its application, bring about the introduction of magazine roads and circulatory roadways and result in buffer areas between the surrounding highways and the parking areas, while the planning principle of unity, orderliness and beauty entails the avoidance of disturbing sights and, indirectly, disturbing noises and fumes.

*We wish to remind the reader that "planning" as used throughout this book, is used as an all-embracing term not restricted to physical planning but including economic, leasing, financial, administrative planning, etc.

OR SHOPPERS

eather protection at mall entrance of bartment store. Valley Fair, San Jose, lifornia.
chitects: Victor Gruen Associates
otograph: Gordon Sommers

Covered cross walk connecting roof overhang along show windows with department store entrance, simultaneously sheltering stairway to concourse shops located in basement. Valley Fair, San Jose, California.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

Colonnade in front of multiple-tenant building. Valley Fair, San Jose, California.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

In a sub-tropical climate, shading devices are introduced in a landscaped court. Merchandising functions and a sidewalk cafe are located in shaded areas. Maryvale Shopping City, Phoenix, Arizona.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

The Procedure of Site Planning

Having discussed the principles of site planning, we are now ready to talk about the exciting and stimulating task of site planning as a creative activity. The architect now has before him numerous pieces of information, a long list of physical requirements, of conditions and restrictions which he will have to keep steadily in mind during the planning process. But beyond that, and while constantly mindful of good planning principles, he must, with his "inner eye," be able to visualize three-dimensionally the effects he will create by placing specific elements into specific positions.

In describing the procedure of site planning, one can only describe the mechanics, the techniques. To attempt to discuss intelligently the spirit which must pervade such planning, the act of creating the design, would be like trying to give a formula for composing a symphony or painting a picture. The techniques and mechanics can be described, learned and mastered. If they are mastered, workable plans will result. Really spirited planning, however, depends on the presence of something additional which might be called intuition, imagination, or creativeness.

What, then, are the techniques, the mechanics, of site planning to be used in our task of placing on an area of given size, shape, and dimensions, building elements (sometimes with clearly defined dimensions, often with dimensions still to be established) in accordance with certain rules, conditions and restrictions in a definite and favorable relation to each other?

In allocating the Site Area (SA) we will have to dimension and arrange all shopping center elements (including provision for future expansion) in such a fashion that the Ground Area (GA) required for them can be contained within the site and the land area fully utilized.

Therefore:

$$SA = GA$$

The Ground Area (GA) is made up of the following elements:

1) Shopping Core Ground Area — CGA
2) Transportation Ground Area — TGA
3) Buffer Area — BUA
4) Reserve Ground Area — RGA
5) Other Uses Ground Area — OUGA

Therefore:

$$GA = CGA + TGA + BUA + RGA + OUGA$$

The five elements that make up the Ground Area are discussed individually below.

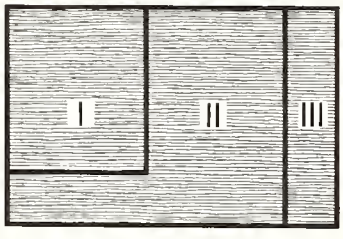
1) Shopping Core Ground Area (CGA). This is made up, in turn, of two elements:

Building Area at Ground level — BAG
Space between structures at Ground level — SPG

Therefore:

$$CGA = BAG + SPG$$

Let us assume that the economic analysis recommendation was for a specific total quantity of rental area (RA). To this area we will have to add a certain percentage for *non-rental* areas such as corridors, truck roads, service and utility areas, etc. The result is the gross Building Area (BA).



Building Area (BA) Consists of:
I. *Department Store Area.*
II. *Tenant Rentable Area.*
I + II is Rentable Area (RA).
III. *Non-rentable Building Area which is a percentage portion of RA.*
BA = RA + % of RA

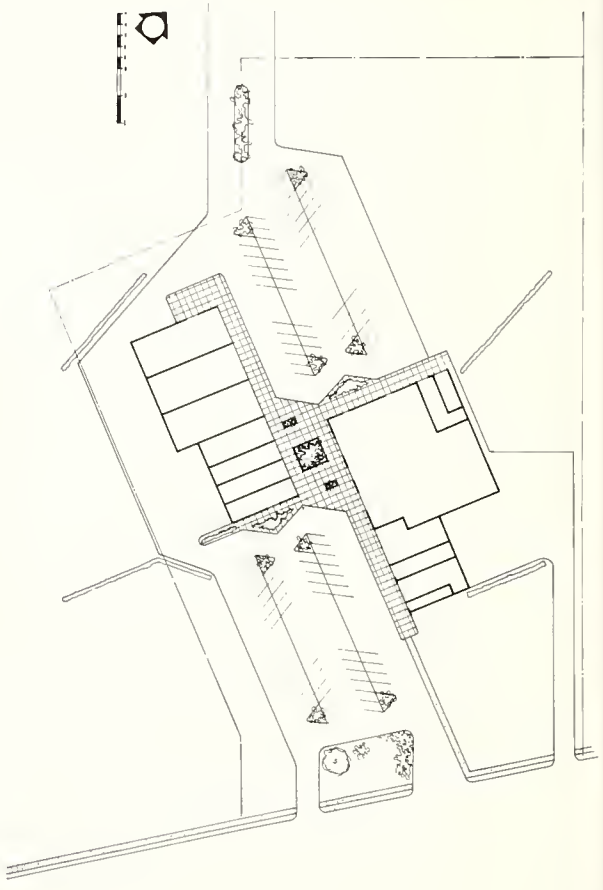
Assumptions: I is 200,000 sq. ft.
II is 300,000 sq. ft.
III is 100,000 sq. ft.
BA is 600,000 sq. ft.

Formularized this becomes:

$$BA = RA + \%RA^*$$

To plan the distribution of the gross Building Area (BA) we must know how much of it will be placed at ground level. Theoretically it would be possible that the ground coverage of the buildings would be wholly at ground level (BAG = BA). Such a center would have neither basements nor upper levels.

Pala Shopping Center, plan of which is shown here, with 35,000 square feet of building area all located at ground level, is an example of this formula.



Plan of Pala Shopping Center, San Jose, California.
Architects: Victor Gruen Associates

* The percentage symbol has been introduced here because non-rental areas constitute a variable factor with changes significantly depending on site planning and other factors.

A center might be planned, on the other hand, in which all buildings were constructed with full and no-excess basements.
Then:

$$BAG = \frac{BA}{2}$$

We might also be faced with a project in which some buildings might require basements and second and third floors. This would happen if a department store required a basement, first floor, and two upper floors. A junior department store might require basement, first floor, and one upper floor, and all other stores would have only one level. Partial basements might be called for, or basements in excess of ground floor building area. When such complexities occur, a tabulation will be necessary.

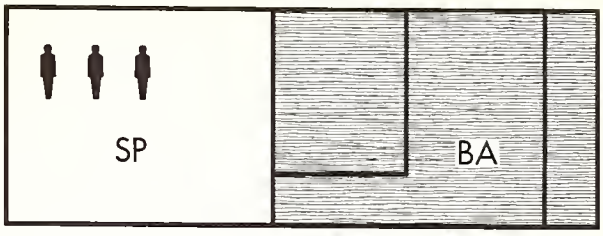
TABULATION
(in thousands of square feet)

Levels	BA						
	RA			Non RA*	RA	BA	BAG
	Department Store	Jr. Department Store	Others				
Basement	100	30	200	60	330	390	
Ground Floor	100	30	200	60	330	390	390
2nd Level	100	—	—	—	100	100	
3rd Level	100	—	—	—	100	100	
Other Levels	20	—	—	—	20	20	
Sum Total	420	60	400	120	880	1,000	390

*Figures for non-rental areas, like all figures in this chart, are purely symbolic at 12% of the building area. This is high; most planners try to keep non-rental area at less than 8%. Covered malls or courts should be regarded as space between buildings rather than as building area. In calculating rental areas it is recommended that an aisle area around each merchandised concession be included for customer traffic.

The site will often permit the architect to develop a "theme with variations." It is a long way from the one-level solution of Pala, mentioned above, to a complex solution like the proposed Westchester Terminal Plaza (see page 97) where rental area will be distributed over four levels. The architect will probe and experiment, trying a number of alternates; his planning ability will guide him toward the best solution.

Space between structures at Ground level (SPG). This is obviously a part of the total Space between structures (SP) which is explained in detail below.



Shopping Core Area (CA) consists of:
Building Area (BA) and space between structures (SP)
Assumptions: *BA is 600,000 sq. ft.*
SP is 500,000 sq. ft.
CA is 1,100,000 sq. ft.
CA = BA + SP

The total Space between structures (SP) consists of pedestrian areas, landscaped areas, open service areas, etc. The (SP) element when added to the gross Building Area (BA) which we arrived at above, forms the shopping Core Area (CA).

$$CA = BA + SP$$

From the above it follows that to establish the shopping Core Ground Area (CGA), the Space between structures at Ground level (SPG) and the Building Area at Ground level (BAG) must be added together. So, to repeat:

$$CGA = BAG + SPG$$

Experience in planning has shown that Space between structures (SP) is in many cases, especially in regional centers, approximately equal to the gross Building Area (BA). However, depending on the planning layout and the number of levels into which the gross area is divided, this relation might vary substantially. The best procedural method will be to establish:

a) The gross Building Area (BA) and the Space between buildings (SP) which together form the shopping Core Area (CA).

b) A number of alternate ground coverage (CGA) areas by tabulating variations by which the shopping Core Area (CA) could be allocated to various levels.

As a result of our first investigation we will be able to set down one rather definite figure, the shopping Core Area (CA), and a number of choices for total Core Ground Area (CGA).

2) Transportation Ground Area (TGA). This is made up, in turn, of three elements:

Parking Area on Ground level — PGA
Movement Area on Ground level — MGA
Public Transportation on the Ground — PTG

Therefore:

$$TGA = PGA + MGA + PTG$$

Vast transportation and car storage area in Gulfgate Shopping Center, Houston, Texas.
Architects: John Graham and Company
Associate Architects: Irving R. Klein & Associates
Photograph: Bel-Air Photographers

The next step is to estimate the area needed for car storage and car movement within the site. We will refer to this as Parking Area (PA). There is, obviously, a relationship between Rental Area (RA) and Parking Area (PA) and it can be generally stated that the larger the RA becomes, the larger the PA will be. Hundreds of formulas and rules-of-thumb have been developed in attempting to define this relationship mathematically. Some establish parking ratios such as RA:PA :: 1:3 or RA:PA :: 1:4. Other formulas establish the number of automobiles per 1,000 square feet of rental area, like 5 cars per 1,000 square feet; 7 cars per 1,000 square feet; 10 cars per 1,000 square feet of RA.

Such rules, which are presented as if they were results of exact science, have one thing in common: they lead to wrong conclusions unless consideration is given to corrective factors. Such corrective factors, which can be of decisive influence, result from the special conditions that are present in each individual case. We shall discuss these factors at greater length in Part II, Chapters 6 and 7, but in the meantime will touch on them briefly.

Corrective factors result from a consideration of the following:

a) The amount of foot traffic generated from immediately surrounding areas.

b) The amount of shoppers' traffic from public transportation.

c) The size of the shopping center. In a very large center considerable multiple purchasing may be anticipated. (This means that one shopper will buy in several stores while parking his car only once, as opposed to a single purchase transaction when parked at a single store.) Thus, in some cases, but by no means in all, it can be assumed that the larger the number of stores and the larger the size of the stores in a shopping center, the lower may be the need for car storage areas in relation to rental area.

d) The character of the stores which make up the shopping center. A general statement can be made to the effect that stores with large individual unit sales will require less parking space than stores with a low unit sales figure. A luxury jewelry store or luxury fashion store will generally serve a smaller number of customers during a sales day than a supermarket of the same size. The presence of a large number of stores with large individual sales transactions will tend to reduce the need for parking spaces.

e) The projected over-all sales volume per square foot of RA. A shopping center for which a sales result of $60 per square foot is projected as attainable optimum requires less parking space than one for which a sales volume of $100 per square foot is projected. Thus, Northland Center, near Detroit, has, in spite of its large size (over 1,000,000 square feet of rental area), 9,657 parking spaces or 8.94 per 1,000 square feet.

f) Peak sales periods (Christmas, Easter, etc.) and peak hours (night openings, etc.). In most suburban shopping centers a considerable part of the business is conducted during peak periods and peak hours. If the sales success of a shopping center is to depend to a large degree on the sales made during these hours, then the parking need must be adjusted to meet such peak loads. Northland Shopping Center has solved this peak load problem by utilizing unpaved areas and the edges of the internal roads at such times; this enables them, when the need arises, to accommodate well over 11,000 cars. If, on the other hand, night openings are not foreseen or if, on account of the characteristics of the area, a more even flow of shopping activities, with an absence of extreme peaks, may be expected, special provisions for such peak hours will be unnecessary and smaller sized parking areas might well take care of the situation.

By taking all the above into consideration, the size of the parking area (PA) can be established. The figure arrived at may, however, still be subject to correction up or down. For example, in the event that the size of the site should prove insufficient, the availability and cost of additional land might play a determinative role. Where PA has been gauged to those peak hour needs which occur only on rare occasions such as at Christmas, then the disadvantage of high construction and upkeep costs plus the psychological disadvantage of having large portions of the

parking area appear empty during most shopping periods may outweigh the advantage of having sufficient parking area for the few seasonal peak periods.

From the foregoing it will become apparent that the establishment of the size of parking areas cannot be properly handled simply by applying patent formulas. In the various shopping centers illustrated in this book the relation of car space per 1,000 square feet of rental area varies from approximately 3 (Stonestown, San Francisco) to 9 car spaces per 1,000 square feet of rental area (Northland Shopping Center, Detroit). At the risk of appearing to recommend still another patent formula, we would like to express our preference for the method of measuring the ratio of parking area to shopping area by relating the number of parking stalls to 1,000 square feet of rental area. The other method, the one of area ratio, has the inherent disadvantage that parking areas may yield varying numbers of parking stalls depending on the shape and topography of the site as well as on the parking arrangement chosen.

Great differences of opinion exist as to how much space should be allocated to one parking stall. We believe that at least during the site planning period (that is, before an exact parking lot layout and road layout is in existence) a generous amount should be allowed. After careful research among existing shopping centers, we have concluded that for the purpose of site planning the figure of 400 square feet per parking space should be employed. This figure, of course, includes allowance for parking roads, various unusable fragments of land and losses of area due to space needed for lighting standards, walkways, planting, etc. but does not include allowance for circulatory roads.

Once we have arrived at the total needed parking area, we have to decide whether it should be arranged on one level, on two decks, or on a number of decks (garage type arrangements).*

It is, of course, possible that portions of the total parking area might have upper decks, while other portions might be on one level.

Parking area on Ground level (PGA). Only after we have decided upon the vertical arrangement of parking areas will we be able to arrive at the ground coverage to be occupied by car storage areas.

Movement Areas on Ground level (MGA). We next have to set aside space for automobile movement beyond the parking lanes (which are included in the parking areas themselves). This refers to distribution roads, belt roads around the center but located on the site, truck-roads, magazine roads, ramps in the case of double-deck and multiple-deck parking. In smaller centers such space might be insignificant, but the larger the shopping center becomes the greater is the space needed for such roads. Allowances must also be made for separate service roads which will bring service vehicles from the public road system to the service areas located in the center area. In the case of multiple-deck parking some of these might occur on upper levels and have to be listed separately.

Public Transportation on the Ground (PTG). Next we must consider space needs for public transportation. Generous arrangements for public transportation carriers with well located and protected waiting rooms will encourage transportation companies to utilize them. If space for the accommodation of waiting buses and taxicabs is provided, lines starting and terminating at the shopping center as well as taxi stands will in all probability be established. It is recommended that discussion concerning space needs for existing and potential future public transportation facilities be held at the outset of site planning work and that provisions should, whenever possible, go beyond the required minimum. Superior facilities in some shopping centers like Northland, Southdale and Eastland bring an unexpectedly large number of shoppers by means of public transportation.

3) **Buffer Areas (BUA).** Area allocations for buffer zones may take up considerable land portions for necessary protection of surrounding areas.

4) **Reserve Ground Areas (RGA).** Finally we shall have to allow for reserve areas. Reserve areas will express themselves in all area allocations that have been mentioned. Space will have to be set aside in the shopping area proper when all expansion is to be vertical. Certain of the service buildings, such as heating and air-conditioning plants, may have to be built larger than had been intended initially. Reserve space must be allocated for future car storage areas and automobile movement areas. When all area tabulations, with the various alternates and variations, have been properly listed, the architect finds himself in possession of an "inventory" of all the elements which have to be placed on the site and his real task of placing the elements in optimum relation to each other, of choosing between various tabulated alternates, begins. It is a task so complex that it can, in most cases, only be achieved by an empirical approach.

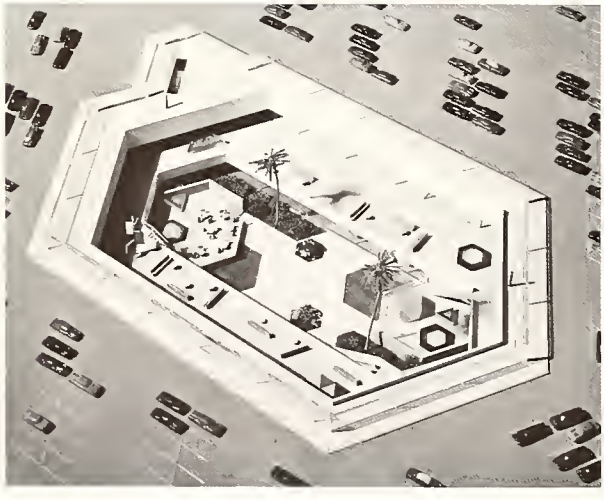
5) **Other Uses Ground Area (OUGA).** Inevitably the architect finds himself confronted with one of three situations:

a) The sum total of all requirements checks with the total area of the site. (SA = GA)

b) The sum total of all requirements is smaller than the total area of the site. (SA = GA + X)

*To avoid confusion that might be created by referring to various parking levels and other parking arrangements we refer to a *"parking level"* wherever an individual parking area stores cars on one level only, regardless of whether this is the ground level, a submerged, or a raised level. Whenever we wish to indicate the construction of a second or other additional levels above an individual area, these are referred to as "parking decks."

A medical building and hospital establishes an additional land usage. Cross County Center, Yonkers, New York.
Architect: Lathrop Douglass
Photograph: Gottscho-Schleisner



Above
Shopping center project with a site of limited size and complex topography. Parking is on various levels, including roof level above shopping center. Shopping takes place on two levels sandwiched between lower and roof-deck parking facilities. Fifth Avenue South, Washington, D.C. (in planning stage).
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

c) The sum total of all requirements is larger than the total area of the site. (SA + X = GA)

If the architect is confronted with the first situation, his work progress will be facilitated and desirable results may be forthcoming within a relatively short time.

Confronted with the second situation, he may propose additional other land uses for the ground area (OUGA). These should be judged in the light of whether they will fill existing needs which are in harmony with the land use of the surrounding area and will further contribute to the success of the shopping center. Such uses might be medical and dental office buildings, general office buildings, recreational facilities, civic, cultural or social facilities, or apartment houses. Whenever an additional usage is considered, however, it will be necessary to ascertain that the resulting traffic and parking requirements can be fully handled on the available land. It was, for example, possible to add a 1,400 seat legitimate theater in Northland Center without increasing parking or traffic facilities because the parking peaks of the shopping center did not coincide with the theater traffic.

The task of the architect becomes extremely difficult and also truly interesting when he is faced with the third situation and realizes that the sum total of all land usage requirements is larger than the site for which he has to plan. Several avenues of approach may be considered.

The possibility of additional site purchase will have to be seriously investigated even if the cost of additional land should be much higher per square foot than for the original parcel. This might still be the cheapest and best way out of the predicament. If one considers that the cost of parking-deck construction might be $200,000 per acre it is apparent how high a price for land might be justified.

Rearranging rental space on more than one level will lead to savings in the building ground area.

Because of the greater space needed for parking areas as compared with building areas, arranging parking on more than one level will result in even larger area savings. (See the schematics reproduced later in this chapter.)

Below
A small site with an inherent large shopping potential necessitated multi-level parking and merchandising. The slope of the land was used advantageously. The Center, Omaha, Nebraska.
Architects: J. & G. Daverman
Photograph: Photographers Associated

When the difficulties of placing the shopping center elements mathematically correctly on the site plan, and when questions concerning the relationship of the elements to each other have all been satisfactorily resolved, there still remain a number of other considerations that have to be taken into account, of which the following are typical.

Certain merchandising enterprises demand special consideration for their locations. The department store, for example, will usually (rightly or wrongly) insist on visibility from the main approaches. Inasmuch as the department store structure will be the largest and most important building of the shopping center, the tenant's wish coincides to a certain degree with the shopping center's own need for expressing prominence and importance. When two or more important stores are principal tenants they will often insist on equal prominence and visibility. Food markets require a larger amount of nearby parking. In regional shopping centers their special business characteristics can be efficiently taken care of, as a rule, by the construction of pick-up stations located in the middle of parking areas and connected with the supermarket by underground conveyors. Stores which stay open for business every night should be grouped together into a section which will remain lighted and busy for long hours after the rest of the center has closed.

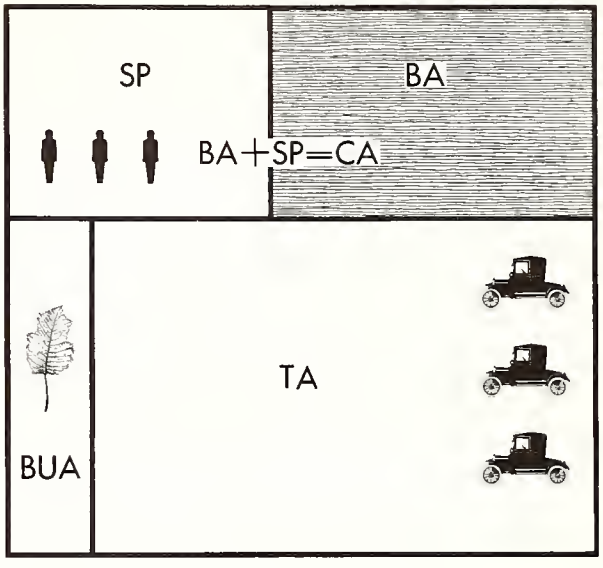
Through the entire site planning procedure the architect must remain aware of the architectural expression of the center toward surrounding streets, toward the parking lots and toward pedestrian areas. Site planning must also be directed toward gaining impressive vistas, a well-composed silhouette and well-proportioned spaces between the structures.

Although the schematics on these pages attempt to illustrate the procedure of site planning, they do not aim to give precise information as to the size of each land usage category but rather to illustrate, in a general way, the size of the main planning elements in relation to each other and to show to what degree the planner can adapt a project to the size of the site.

Assumptions for Six Schematics

The schematics are based on the assumption of a regional center with a gross building area (BA) of about 600,000 square feet, of which 500,000 square feet are rental area (RA). Of this rental area a department store occupies 200,000 square feet. The Transportation Area (TA) is shown to be approximately three times the rental area. (Transportation area is understood to be that portion of the site which is necessary for parking, internal traffic roads, bus stations, pick-up stations, taxi stands.) The pedestrian area (SP) is assumed to be slightly less than the rental area on the ground, It consists of malls, courts, sidewalks along the parking side of the stores, and walkways in the parking area. The buffer areas (BUA) surround the parking area.

Case A. All structures are one-story high without basement. All parking is on one level.

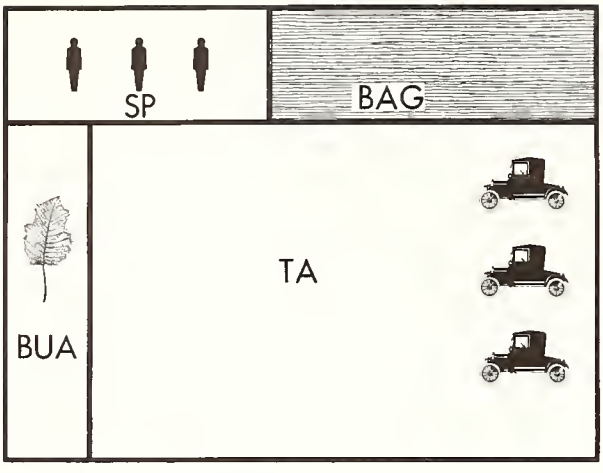


SA = BA + SP + TA + BUA
BA = Building Area
SP = Space between Structures
BA + SP = CA (Shopping Core Area)
TA = Transportation Area
BUA = Buffer Area
TA consists of PA (Parking Area)
MA (Traffic Movement Area)
PT (Public Transportation Area)
Assumptions: CA is 1,100,000 sq. ft.
TA is RA × 3 (RA is Rental Area)
*or 1,500,000 sq. ft.**
BUA is 250,000 sq. ft.
SA (Site Area) is 2,850,000 sq. ft.
or approximately 66 acres.

**Alternate method for figuring TA:*
500,000 sq. ft. (RA) × 7 cars per 1,000 sq. ft. =
3500 cars × 400 sq. ft. per car = 1,400,000 sq. ft.

Case A shows the site needed if all structures are one-story high, without basement, and if all parking is on one level. (SA = BA + SP + TA + BUA). For such an arrangement, a site of approximately 66 acres is necessary.

Case B. The department store consists of basement, first floor and second floor. All other stores have basement and first floor.



SA = BAG (Building Ground Area) + SP + TA + BUA

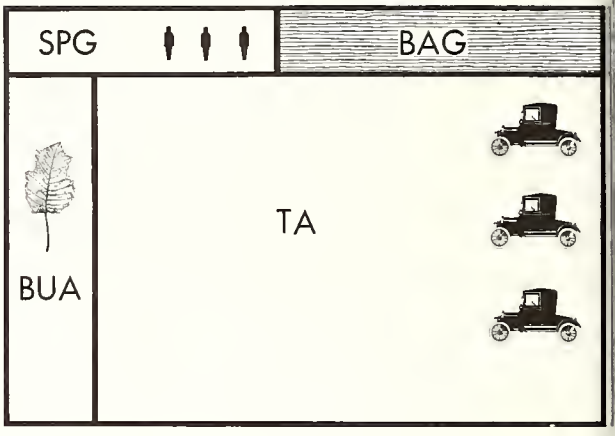
Assumptions: $BAG = \frac{\text{Department Store}}{3} + \frac{\text{Other Rental}}{2}$ + *Non-rental Area.*

On the basis of previous assumptions, this results in 66,000 sq. ft. + 200,000 sq. ft. + 50,000 sq. ft. or 316,000 sq. ft.

SP =	*270,000 sq. ft.*
TA =	*1,500,000 sq. ft.*
BUA =	*250,000 sq. ft.*
SA =	*2,336,000 sq. ft.*

or approximately 55 acres.

Case C. Merchandising is generally on three levels but department stores have four levels. Transportation area is on one level.



SA = BAG + SPG + TA + BUA

Assumptions: $BGA = \frac{\text{Department Store}}{4} + \frac{\text{Other Rental Area}}{3}$ + *Non-rental Area on Ground Level*

On the basis of the earlier assumptions, this is expressed in figures as follows:

BAG = 50,000 + 100,000 + 33,000 sq. ft.
or 183,000 sq. ft.

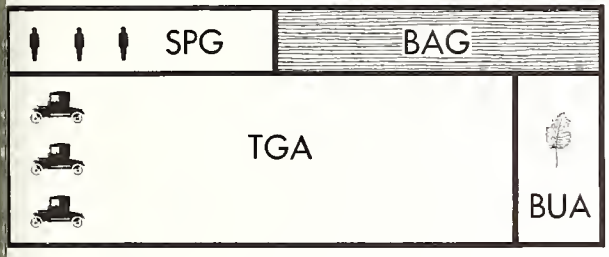
SPG =	*150,000 sq. ft.*
TA =	*1,500,000 sq. ft.*
BUA =	*250,000 sq. ft.*
SA =	*2,083,000 sq. ft.*

or approximately 48 acres.

Case B shows an arrangement in which the department store consists of basement, first floor and second floor. All other stores have basements and first floors. It is assumed that the largest portion of the service area is taken up by service roads. The building arrangement described above has been used in many shopping centers (Northland, Eastland, etc.). For such a building arrangement a site of approximately 55 acres is necessary. (SA = BAG + SP + TA + BUA).

Case C assumes again that one-level parking will prevail but that merchandising generally will be on three levels (similar to Southdale.) Thus all stores would utilize basement, first floor and second floor, while the department store would be arranged on four levels, having a third floor. In this arrangement 48 acres are needed. (SA = BAG + SPG + TA + BUA).

Case D. The building arrangement is identical to Case C. However, parking is on two levels.



$SA = BAG + SPG + TGA + BUA$

Assumptions:

$BAG =$		*183,000 sq. ft.*
$SPG =$		*150,000 sq. ft.*
$TGA =$	$\frac{TA}{2}$	*750,000 sq. ft.*
$BUA =$		*125,000 sq. ft.*
$SA =$		*1,208,000 sq. ft.*
		or approximately 28 acres.

Case D attempts to illustrate how a shopping center as described above could be built if only a much smaller site were available. The building arrangement is the same as described in Case B. However, it is assumed that parking will be double-deck. The decrease of parking areas automatically decreases buffer areas. A site of about 28 acres would be sufficient for this arrangement. (SA = BAG + SPG + TGA + BUA).

Case E. Merchandising arrangement as in Case C. Parking on four levels.

$SA = BAG + SPG + TGA + BUA$

Assumptions:

$BAG =$		*183,000 sq. ft.*
$SPG =$		*150,000 sq. ft.*
$TGA =$	$\frac{TA}{4}$	*375,000 sq. ft.*
$BUA =$		*65,000 sq. ft.*
$SA =$		*773,000 sq. ft.*
		or approximately 18 acres.

Case E shows an arrangement which would have to be chosen if the site were extremely restricted in size. The merchandising pattern follows the one described in Case C. However, parking is assumed to be on four levels in a garage type arrangement. A shopping center following these allocation methods could be built on 18 acres. Something of that sort has been accomplished in the Hecht Parkington Shopping Center near Arlington, Va., where customers can enter the shopping center directly from some levels of the garage structure.

Case F. Merchandising arrangement as in Case C. Parking on three levels below shopping levels and on three levels above shopping levels.

$SA = BAG + SPG + TGA + BUA$

Assumptions:

$BAG =$ *183,000 sq. ft.*

$SPG =$ *150,000 sq. ft.*

$TGA = \frac{TA}{6}$ *250,000 sq. ft.*

$BUA =$ *40,000 sq. ft.*

$SA =$ *623,000 sq. ft.*

or approximately 14 acres.

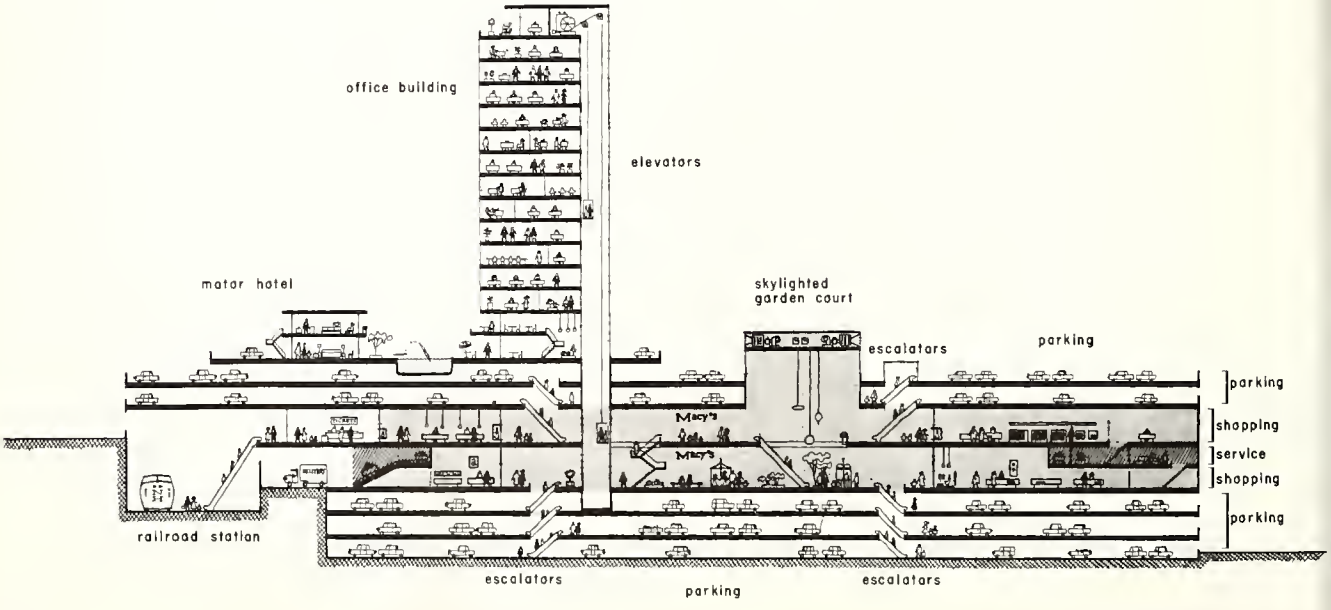
Case *F* is based on the same merchandising arrangement as C and E. Parking, however, is arranged on three levels below the shopping levels and three levels above the shopping levels, so that the shopping center represents a sandwich-like arrangement in which the "meat" of shopping activities is placed between the layers of "bread" of parking facilities. The Westchester Terminal Plaza project follows very closely this "sandwich" approach. Fourteen acres are sufficient for this kind of allocation of site planning elements.

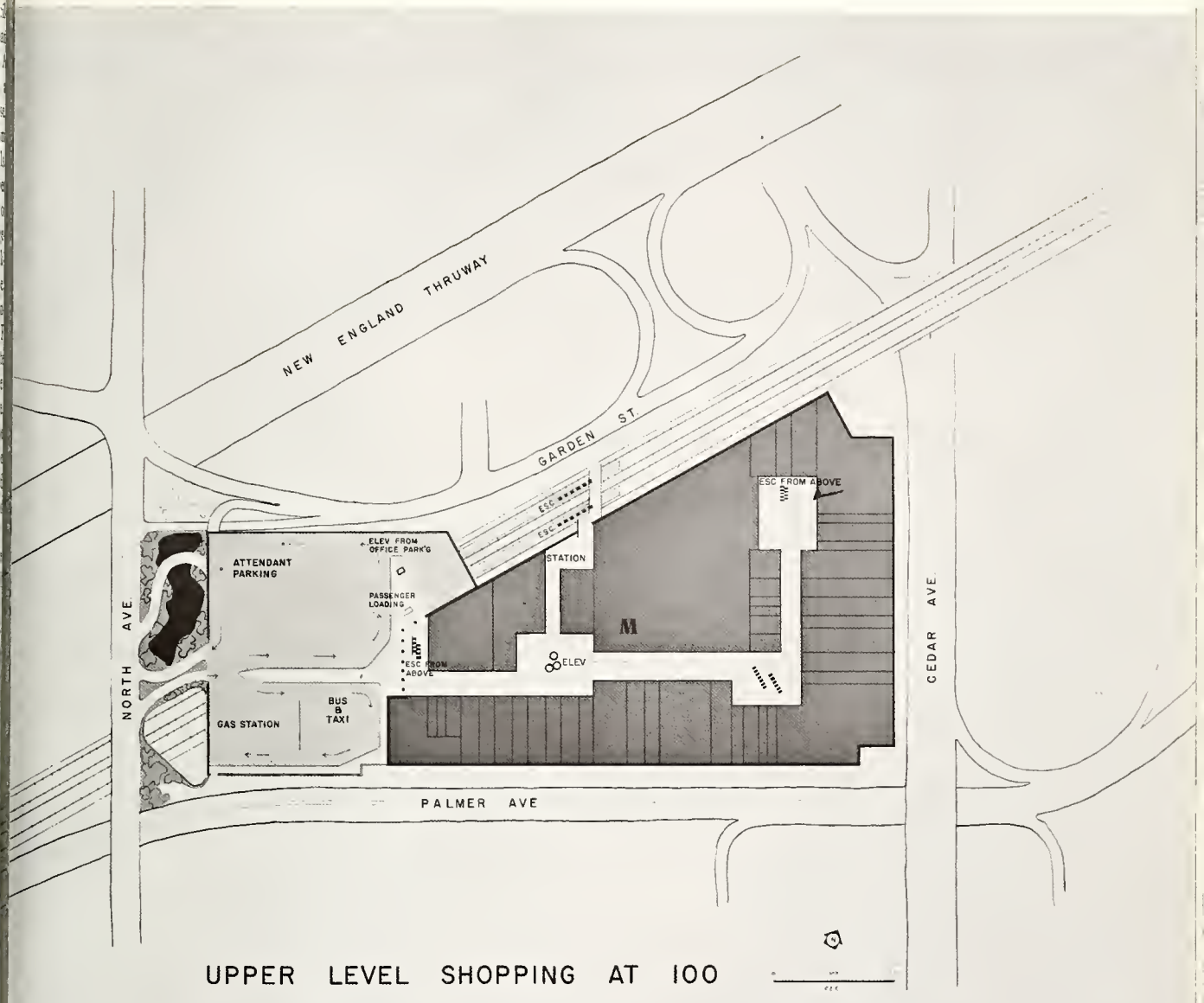
These schematics illustrate that identical shopping facilities supported by identically sized parking facilities can be placed on sites ranging from 66 acres in Example A to 14 acres in Example F. In the process of such a reduction, the character of the shopping center, of course, changes radically from a completely horizontal organism to a vertical one, which in Case F encompasses 9 levels. Construction costs will vary greatly for the various types of arrangements shown in Cases A-F. The one factor which influences the costs most decisively is the arrangement of parking facilities. A horizontal layout, where parking takes place on the ground, will be the least expensive. Vertical arrangements, on the other hand, will involve considerable costs. In spite of this, arrangements like E and F are chosen when the potential of a shopping center site is high and the land available is extremely limited in size. As we proceed in our schematic cases from A to F we are, most likely, starting with a pioneering area location on the suburban fringe (Case A), moving on to locations in the middle of existing suburban areas (Cases B, C, D), and finally toward locations which adjoin existing urban areas (Cases E and F).

Case A, when applied to a large regional center, may be regarded as a space-wasting solution since it spreads rental areas in such a manner that overlong walks will result.

Case F might be characterized as an extremely space-saving solution although it would probably require that some income be derived from the parking activity in order to defray the heavy capital expenditure for the parking structure.

Shopping center site plans of various sizes and types (see Part II, Chapter 12) illustrate the practical application of these planning principles and procedures.





Case F is illustrated by the plans for the projected Westchester Terminal Plaza. The section shows how two shopping centers are sandwiched between lower parking levels and upper parking levels.
Architects: Victor Gruen Associates

PART II–CHAPTER 4

Planning the Surrounding Area

A reciprocal relationship exists between a shopping center and its surrounding area. A well planned center can exert a highly favorable and invigorating influence on the area surrounding it, and a well planned surrounding area can add, in large measure, to the prosperity of the center. Conversely, a poorly planned or unplanned commercial grouping of stores can have a deteriorating effect on its surrounding area, while the success of even the best planned center can be endangered by a poorly planned or blighted surrounding area.

Full awareness of these facts will affect site selection (Part I, Chapter 3) and will prompt the desire to influence, by aimful planning, the character of the surrounding area.

The term "surrounding area" can be understood either in its narrowest sense: i.e., strips of land on the opposite side of the public roads which adjoin the shopping center; or in the widest sense: the entire community within which a shopping center is located.

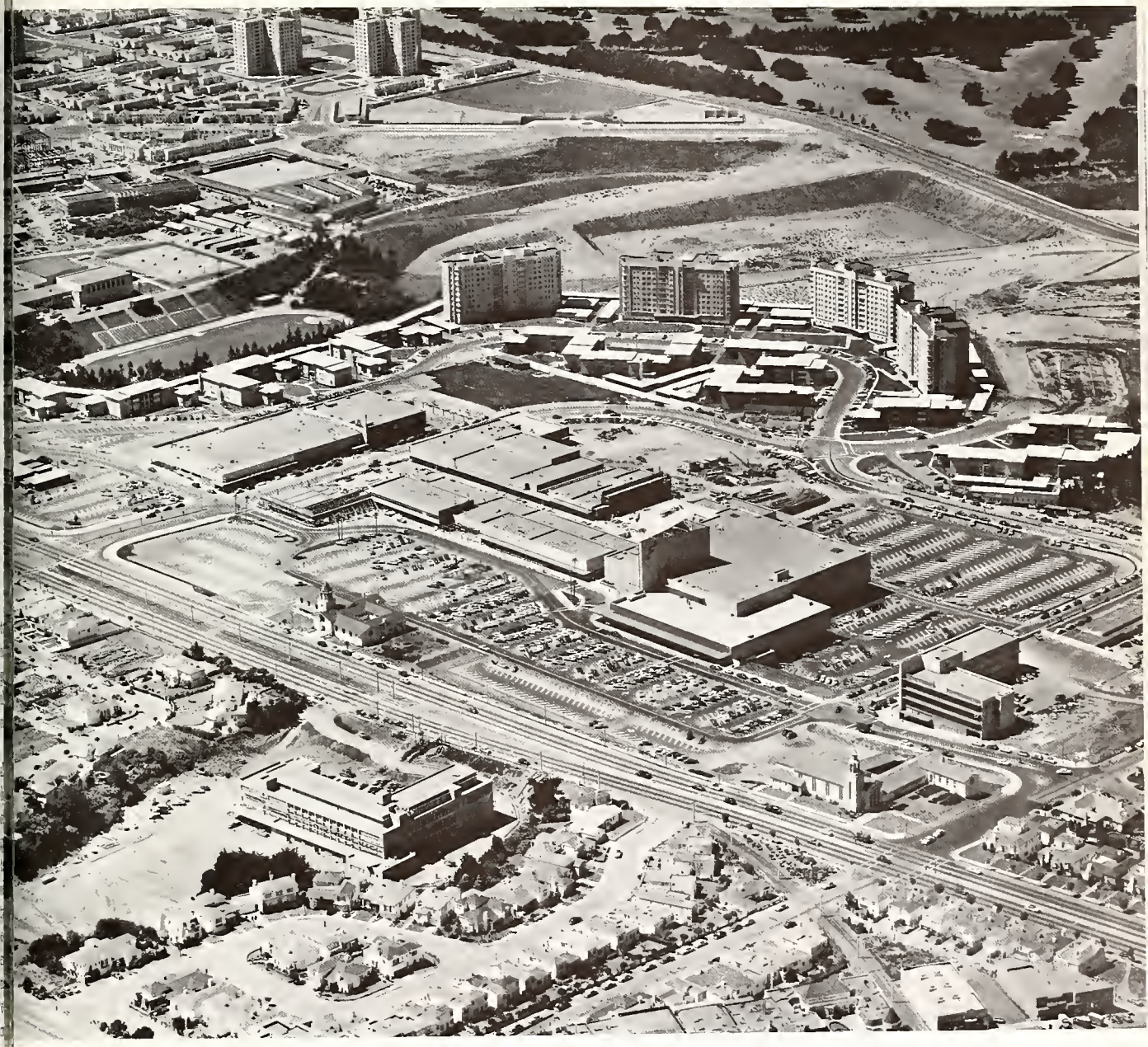
To what degree effective planning can be applied depends on the general location of the center, on the size of the center, on the investment policy of the developer, and on existing zoning and economic conditions.

Generally speaking, when the site for a shopping center is the one remaining piece of land within a completely built-up area, there will obviously be meager possibilities for influencing the character of the surrounding area. In this case, the question of whether the surrounding area is conducive to, or detrimental to, a successful shopping center operation has to be decided before the development of the site is undertaken. Shopping centers located in such areas operate, as a rule, under the handicap of having to be fitted into existing area and traffic conditions; on the other hand, one should consider the undoubted advantage of being provided with a fully developed buying potential. An outstanding example of such a center is Stonestown, built within a densely populated area in San Francisco.

The majority of shopping centers, however, do not fall into this category. The reason for this is obvious. Only by virtue of a coincidence does a sufficiently large site for shopping center construction exist within a fully built up area. Usually, large tracts of land accessible by adequate and uncrowded traffic carriers can be found only on the fringe of suburban development or in comparatively empty areas between existing suburban growth. This applies especially to the regional shopping center and, to a lesser degree, to the intermediate center, both of which can, with some planning, create sufficient pulling power to reduce the disadvantage of being at some distance from densely populated areas. Therefore, in the case of most outlying pioneering shopping centers, opportunities for planning of surrounding areas do exist.

The greatest opportunity for effective planning of surrounding areas in relation to the shopping center is afforded when new communities are projected.* Here it is often possible to set aside, in the master plan, sites of ideal size,

*Such planning can only be safely undertaken in conjunction with a detailed economic study of site potential, because it is unlikely that the business required for the support of the shopping center could be developed solely from the community project itself except in the case of a very large development.



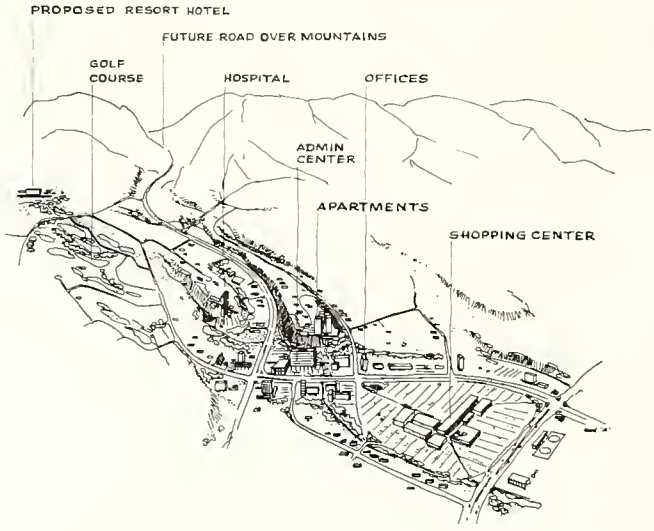
Stonestown Shopping Center, San Francisco, is located in a densely built-up area. Architects: Welton Becket and Associates Photograph: Moulin Studios

shape and physical characteristics for shopping centers, town centers, administrative centers, and to surround these locations with land usages which will be most beneficial to them.

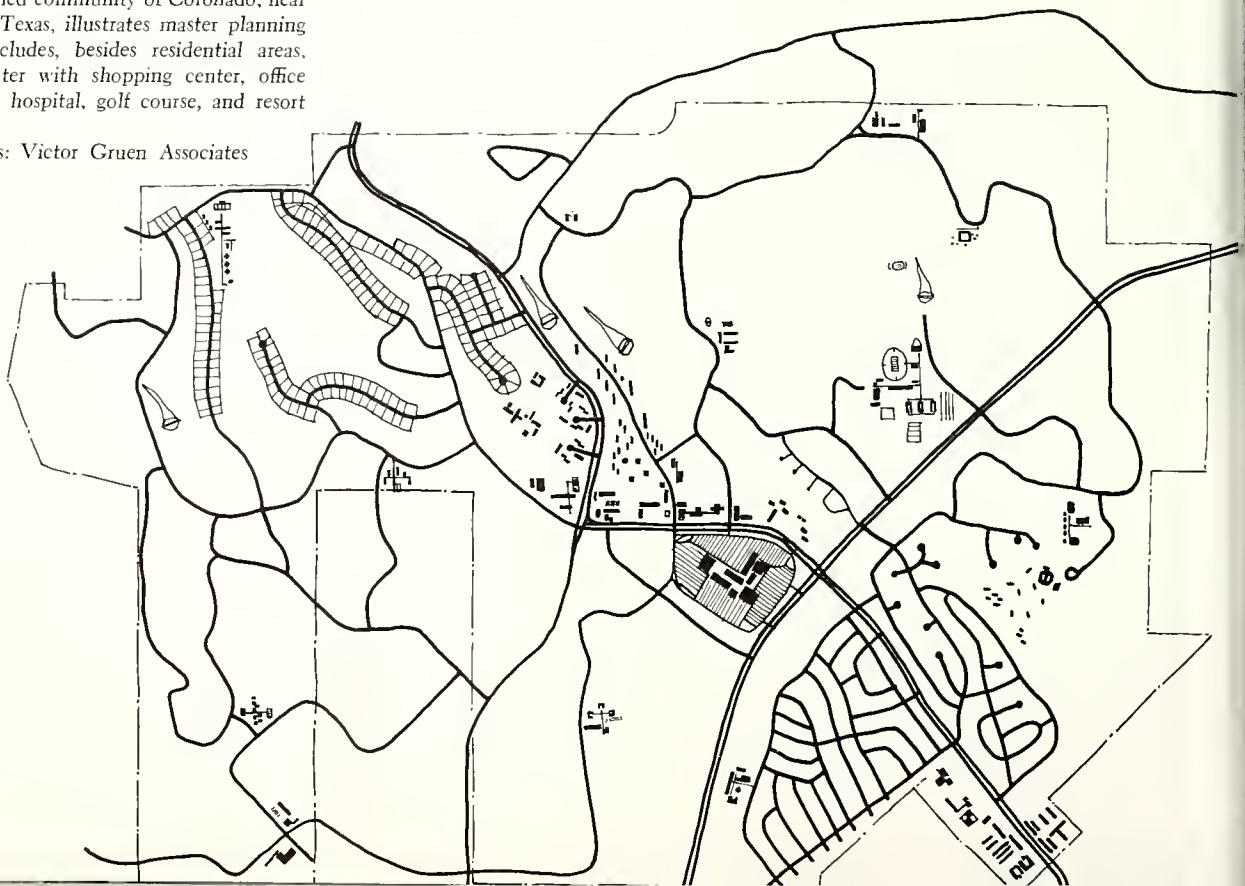
In planning shopping centers simultaneously with new communities we deal with the most advantageous conditions for over-all planning. Important conclusions can be

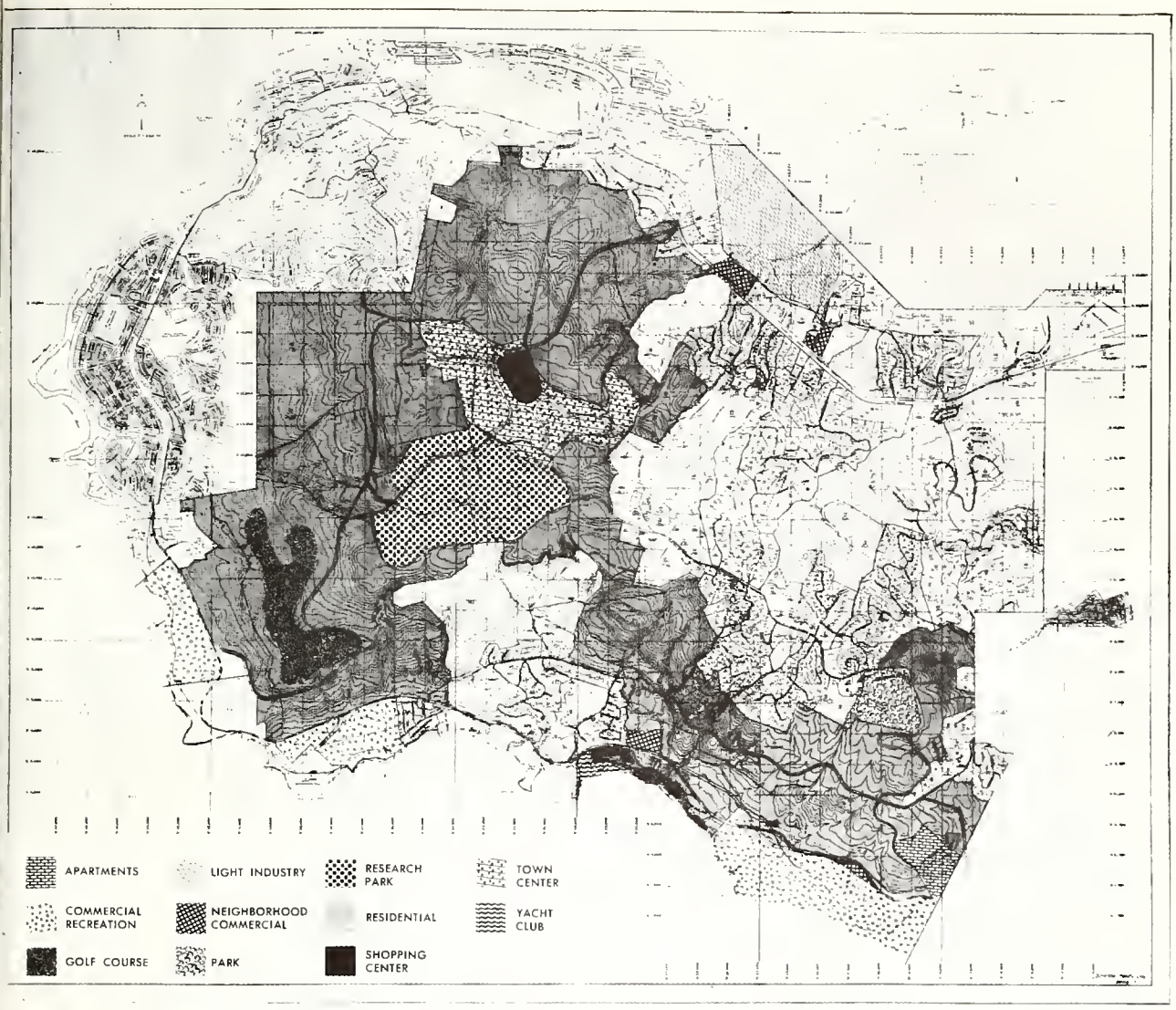
drawn from planning approaches developed for such centers (see case studies below) which are applicable, at least in part, to sites with more limiting surrounding area conditions.

1) *The Palos Verdes Peninsula.* Approximately 6,000 acres of the Palos Verdes Peninsula near Los Angeles was master planned as a new community with an ultimate total population of approximately 80,000. (Implementation of the master plan is in progress.) The largest portion of the 6,000 acre area is devoted to single detached residences with lot sizes ranging from a half-acre to 8,000 square feet, as defined by the master planning pattern. In three dispersed locations, neighborhood shopping centers are projected. A valley and adjoining hilly area located in the center of the peninsula, at the convergence of the main traffic arteries serving the entire development, were designated as town center area. Within that town center area, comprising approximately 350 acres, a site of approximately 30 acres was set aside for a shopping center large enough to serve the new community and some of the surrounding existing urban areas.



The planned community of Coronado, near El Paso, Texas, illustrates master planning which includes, besides residential areas, town center with shopping center, office buildings, hospital, golf course, and resort hotel.
Architects: Victor Gruen Associates

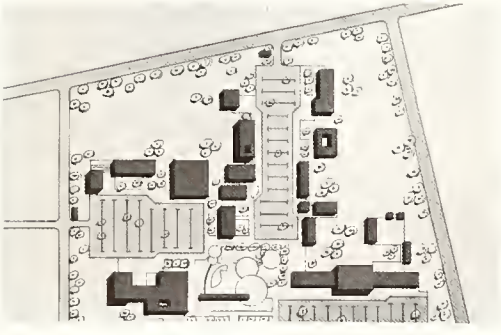




Master Zoning Plan for the Palos Verdes Peninsula, Los Angeles.
Architects: Victor Gruen Associates

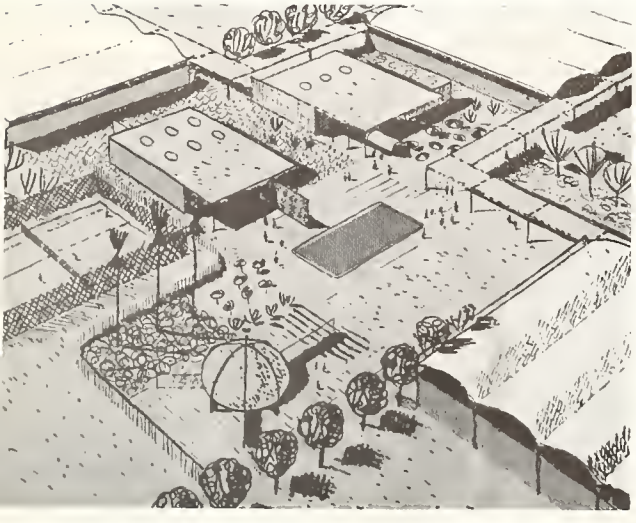
Visualization sketch of portion of Palos Verdes Town Center showing shopping center, office buildings, administration center.
Architects: Victor Gruen Associates

Master plan of research park.



Section of Palos Verdes research park showing relation of buildings to parking area, group facilities and landscaping.

Below
Visualization sketch of section of research park in Palos Verdes.
Architects: Victor Gruen Associates



An industrial research park covering 410 acres of gently rolling highland is located in the vicinity of the shopping center. In this development, research laboratories and related office facilities are arranged in a campus-like environment. Zoning regulations and restrictive covenants limit activity to basic and applied research and assure, by traffic arrangements, set-backs, parking requirements, buffer areas and landscaping, compatibility with all surrounding land uses.

In the areas immediately neighboring the shopping center site, the following land uses are projected: a large apartment house area with multi-level and two-story apartment structures; a heliport, a number of suburban hotels, motels and restaurants; an automotive center containing sales rooms for automobiles and repair facilities; a health center consisting of hospital, medical-dental office buildings, nurses' quarters, etc.; a cluster of general office buildings and related facilities; a number of churches; a public park and playground adjoining a public school.

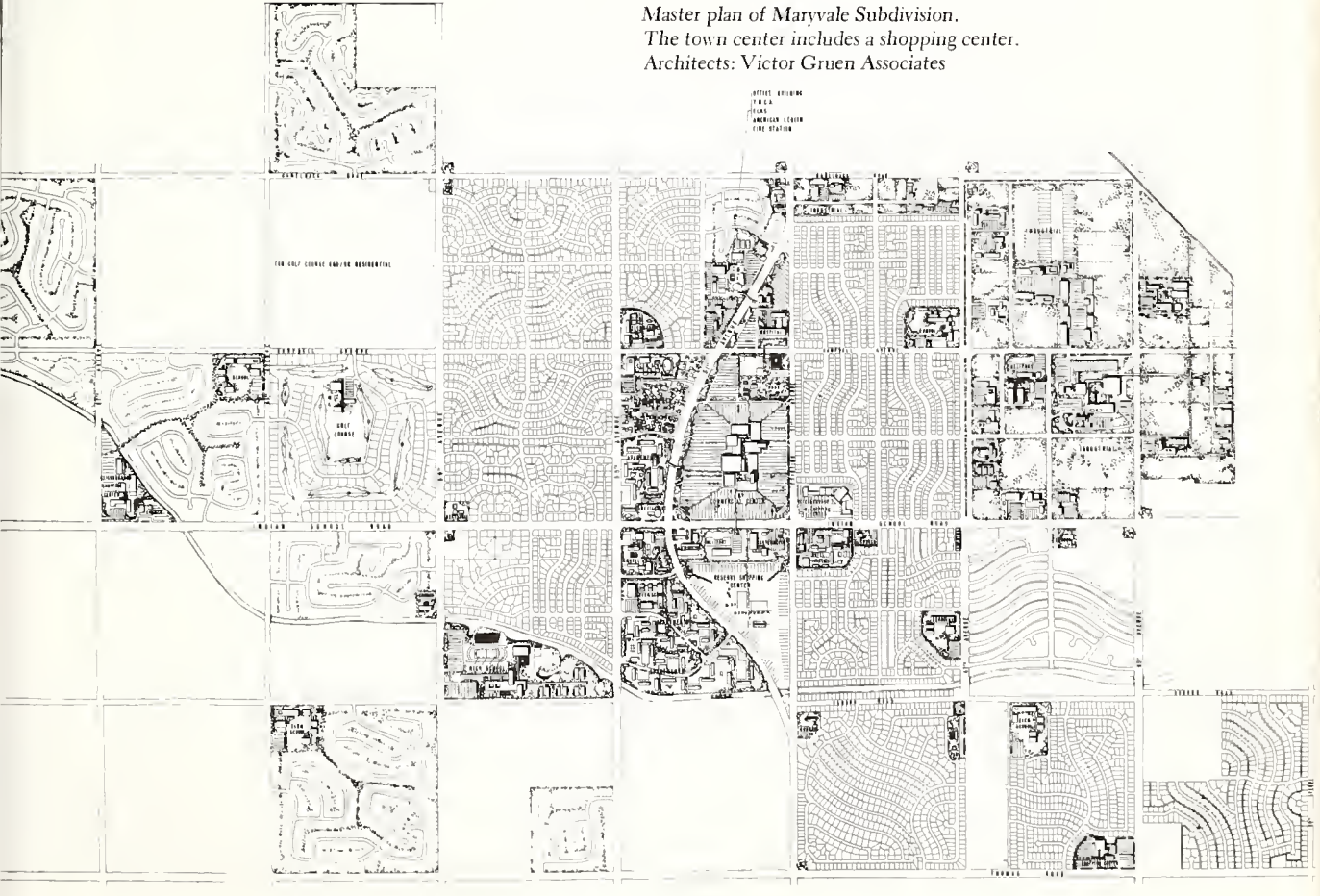
Each of the land usage categories is planned as a self-contained cluster, surrounded by parking facilities and circulatory roads which, in turn, are bordered by buffer areas within which the transfer of traffic

from the public road system to the parking areas takes place. The grouping of the various land usage categories is carefully considered from the point of view of the relationship of the activity clusters to each other, to public traffic areas, to the shopping center, and to surrounding single-family residential areas. The principle followed in the placement of the various activity centers is one of a step-wise, gradual change from areas of intense human activities in the town center to less intense ones on its perimeter. Thus, quiet residential areas are safeguarded from interference by traffic, lights, and noise generated by areas of vigorous activity.

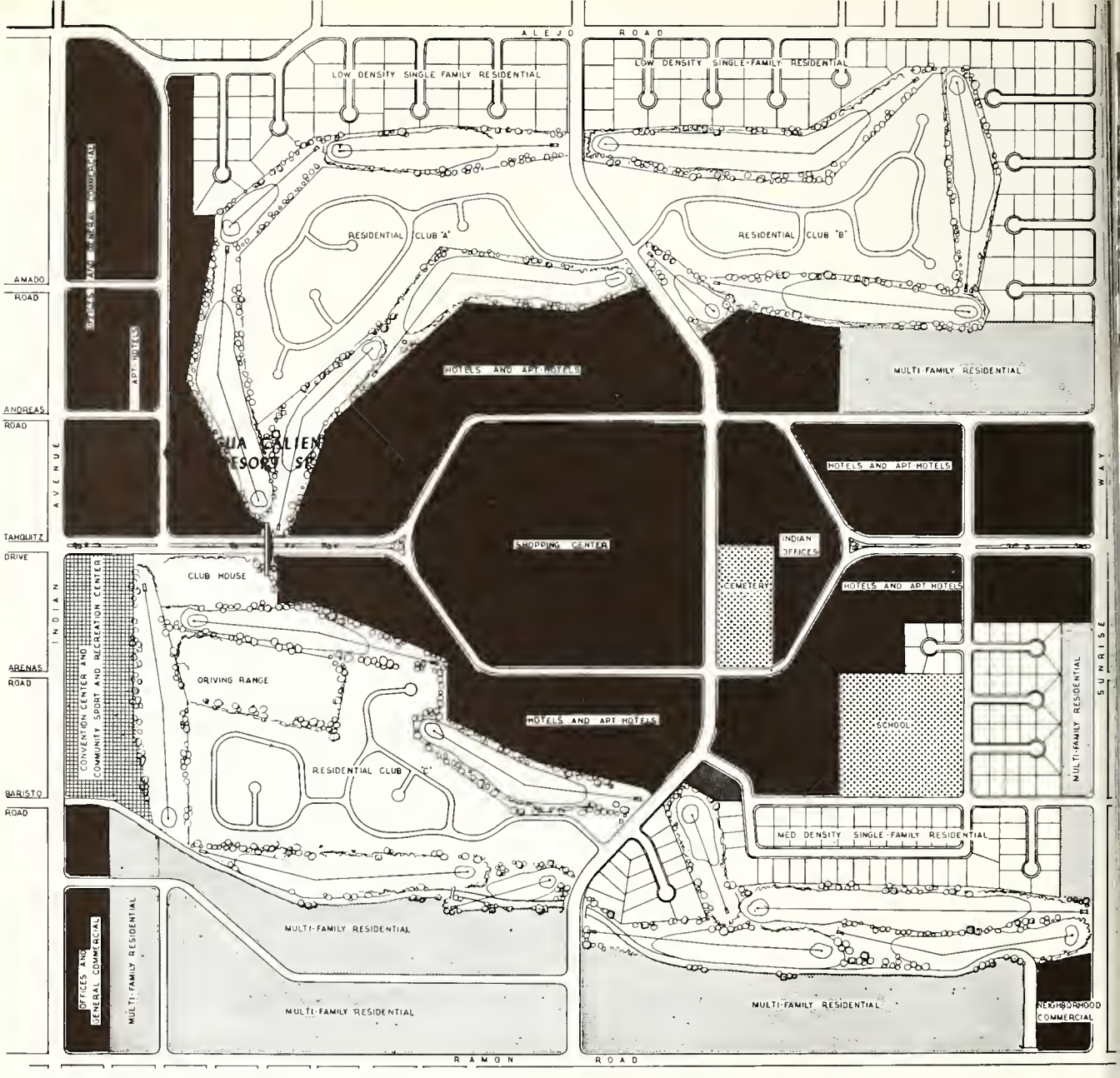
The advantages for the shopping center of such planning of the surrounding area are manifold. Its own business potential will be heightened by the activities of the research park, office buildings, medical buildings, hospitals, and by the civic activities of the administrative structures all located in its immediate vicinity. Apartment buildings with high population density benefit the shopping center by bringing to it, by means of walking or short distance driving, thousands of potential customers. The personnel employed in office buildings, in the research center, in restaurants, medical buildings, and hospitals comprises another desirable group of shoppers. The guests from hotels, motels and restaurants form still another consumer group. Thus, within the general master planning procedure for a new community, the two aims of protecting surrounding areas from disturbing activities of the shopping center and creating the largest possible benefits within the surrounding area for the shopping center itself are accomplished.

2) *Indian Land Development, Palm Springs.* This project represents a highly unusual case. A square mile of land in the very center of the city of Palm Springs belonging to the Indian Tribe of Agua Caliente has remained vacant. But recently the legal restrictions against leasing any portion of the land were lifted, and the Tribal Council in cooperation with the Department of Interior, Bureau of Indian Affairs, arranged for the development of a plan for the square mile area. The stated aim is to use this land advantageously from a real estate point of view and in such a manner that it will enhance the city of Palm Springs.

The plan provides for a re-routing of the main thoroughfare, Tamquitz Drive, which connects the center of Palm Springs with the airport and major residential areas, by dividing it into two arms embracing a regional shopping center located in the very center of the site. Taking cognizance of the fact that Palm Springs is one of America's major resorts, the shopping center is surrounded by a motel and apartment area. This in turn is ringed by an 18-hole golf course which forms a buffer between the central shopping, hotel and apartment areas and the residential section along the fringes of the square mile area. The residential section established a line with existing surrounding residential districts. On the western boundary of the Indian land area, along the existing major commercial street, Indian Avenue, sites are provided for offices, general commercial use, convention, community and recreation centers, and a spa which will be built over the famous thermal springs that gave Palm Springs its name. In the southeast corner of the site a small neighborhood center has been planned.



Master plan of Maryvale Subdivision.
The town center includes a shopping center.
Architects: Victor Gruen Associates



Master plan for Indian Lands development, Palm Springs, California.
Architects: Victor Gruen Associates

3) *The Maryvale Shopping Center near Phoenix, Arizona.* The site is located in the heart of a large subdivision. The master plan envisoges a shopping center with a first stage development of 200,000 square feet of rentol space, a second stage of 400,000 square feet ond an ultimate total of 800,000 square feet of rental area. Areas surrounding the shopping center are planned according to a graduated use pottern. Thus, a regional health center is contemplated to the north of the shopping center, and garden type apartments to the west and southwest. Schools, motels and churches are located within the apartment area. To the south of the center, an automotive areo, a heliport, and an office building ore planned. A triangular area is left undesignated for possible future commercial needs. To the east, sites are set aside for a neighborhood shopping center, motels, a church and a nursery school. Still farther to the east, an industrial and reseorch pork is projected.

The Broadway-Crenshaw Shopping Center, Los Angeles, California. Pirating stores are located directly across the highway.
Architect: Albert B. Gardner Photograph: Gordon Sommers

Many of the benefits created for a shopping center within such total community planning can, to some degree, be realized as well by large and medium size centers located in areas that are not completely built up.

Full use has not always been made of such possibilities, due to failure to recognize that sound development advantages are inherent in the planning of surrounding areas. Conversely, it should be recognized that there are dangers in not influencing future development of surrounding areas.

Undesirable competition which could be referred to as pirating competition, may spring up in the immediate vicinity of the center—in most cases right across the street. It usually, though not always, has merchandising characteristics of a classification lower than the stores in the center itself. It may provide insufficient or no parking facilities, relying on the fact that plenty of parking is provided in the adjoining shopping center. Pirating stores ride free on the coat tails of shopping center publicity, on the pulling power generated by the shopping center, on traffic improvements which were brought about in connection with the shopping center's construction, etc.

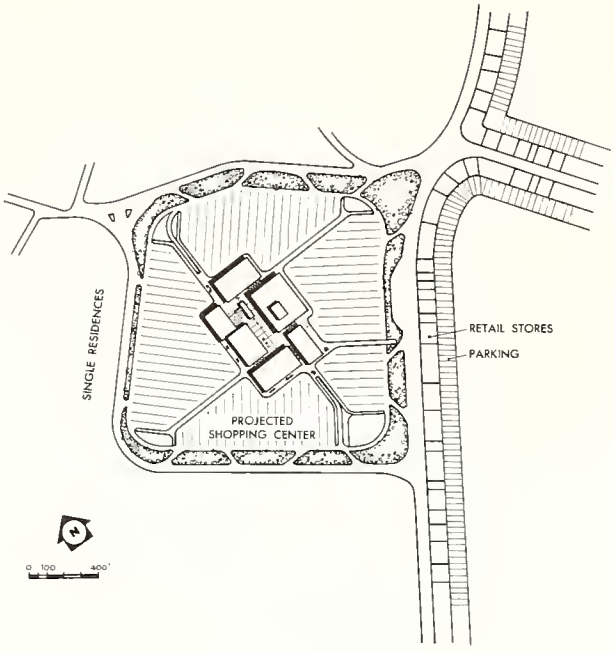
Besides the disturbing economic effects, the existence of such pirating stores also tends to nullify many of the planning efforts that were made for the shopping center itself. The traffic flow on surrounding highways, for example, can be seriously disturbed by traffic created by retail units on the opposite side of the highway. Numerous delivery and service vehicles will cause congestions that will seriously interfere with a smooth traffic flow into the parking areas of the shopping center and thus diminish the convenience of parking.

The uncontrolled and often chaotic character of a strip development of pirating stores will effectively counteract any efforts of the shopping center itself to present a pleasant appearance toward surrounding residential areas. Cheap, shack-like structures of a temporary nature may spring up. Thus, pirating stores tend to bring about a deterioration of surrounding residential property values, and with that a blighting of surrounding areas.

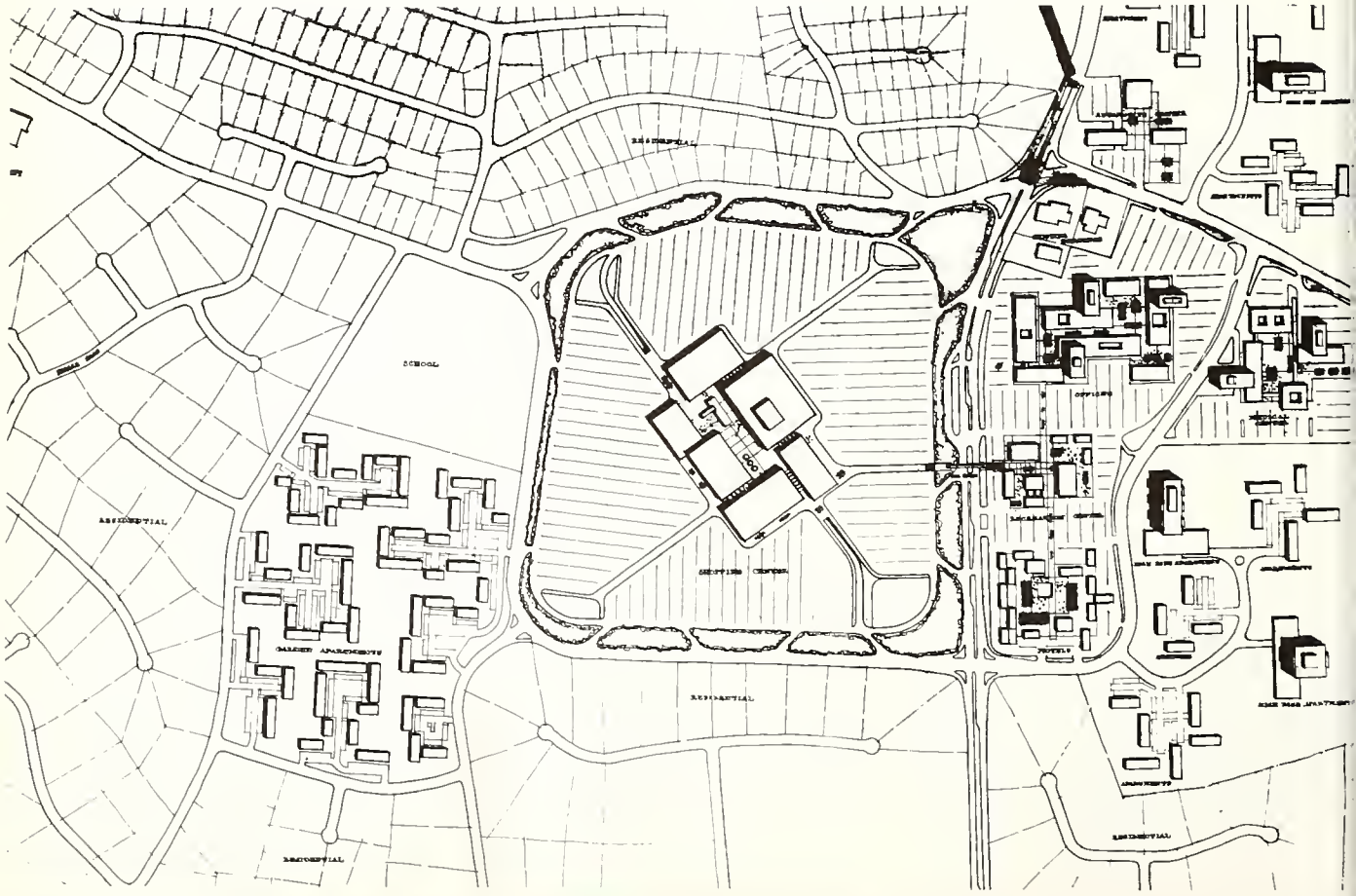
How can such pirating be prevented? As already indicated in Part I, Chapters 3 and 4, earnest consideration must be given to zoning and usage conditions of areas directly adjoining the site. If such areas are zoned for commercial or industrial use, the danger is present that the land will not be used in conformity with the best interests of the projected shopping center. The developer can choose several ways to counteract this potential threat.

He should attempt to acquire either all of the commercially or industrially zoned land, and/or potentially zoned land, or at least sufficient portions of it to preclude large scale competitive retail usage. The acquisition of such land will, of course, involve additional capital expense which in some cases might be regarded as undesirable. However, this additional capital expense has sometimes proven to be not only an effective protective measure, but a profitable real estate investment as well. Inasmuch as land values in the general areas surrounding a well-planned shopping center may increase markedly from the day the project is announced, acquisition of such land may result in profitable investment opportunities. In case of resale, very specific conditions for the usage of the land in compliance with a master plan must of course be stipulated.

Should the developer be unable or unwilling to purchase surrounding areas with inherent danger potentials, he might



The plan at left shows zoning conditions as they existed when the original shopping center was projected.
Below is the plan for surrounding land usage for the same shopping center, as suggested by the architect to assure control of surrounding land by the developer.
Architects: Victor Gruen Associates



negotiate with owners of such land in order to achieve a usage pattern that will be in the best interests of all. He can effectively point out to the other owners that their best common interest lies not in the construction of competitive enterprises but rather in the erection of structures devoted to complementary usages. A large shopping center creates new needs, such as apartments for its employees, hotel or motel space, office buildings, medical buildings, and many other non-retail uses. By catering to these needs land owners may realize higher investment returns than by trying to develop more retail facilities than the location will support.

Whether the shopping center developer acquires surrounding land with the intention of developing it himself, or intends to negotiate with the owners of such land in order to persuade them to develop along the lines of best common interest, it is important that a comprehensive plan for the land usage of the surrounding areas be made.

These objectives should be implicit in such a comprehensive master plan: i) newly created uses should be in harmony with the characteristics of their adjacent areas; ii) new uses should serve as a gradual transition between the high density activity of the shopping center and outlying quiet residential areas; iii) all new uses should be non-competitive to the shopping center; iv) the plan should provide for usages complementary to the shopping center; v) the plan should aim to upgrade the character of the surrounding area economically and aesthetically.

The following case studies indicate how such objectives can be achieved.

i) *Northland Center Area (Detroit, Michigan).* The developers acquired a site of approximately 400 acres, of which only 160 acres were reserved for the shopping center and its future enlargement. Zoning for the entire area proceeded on the basis of a preliminary master planning concept. A final master plan was later developed; its implementation has been partly accomplished and is continuing.

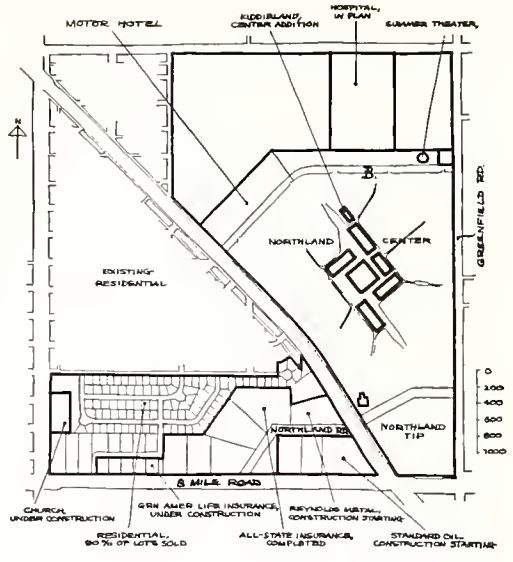
Residential sections were planned adjacent to existing ones. The individual lots were retailed and 90 per cent are sold at present.

A site to the west of a new residential development was set aside for a church which is under construction. The area immediately south of this new residential area, bounded by a major highway and fed by one of the new access roads to the shopping center (Road "A"), was set aside for office buildings and divided into large parcels. For this business area the master plan prescribed set-backs; parking ratios; general architectural character.

In this area a structure for an insurance company has been completed; structures for a second insurance company and for administrative office buildings of two national industrial concerns are under way.

The pie-shaped area directly south of the shopping center itself is surrounded by three major public roads. The master plan provides that main access to this piece shall be gained from the new Road "A" in order to assure easy flow of traffic on the existing public road system which serves as the main traffic carrier for the shopping center itself. For the pie-shaped piece (named Northland Point) the master plan foresees a development in the form of a tight cluster of buildings in the center of the site surrounded by parking areas. The structures contemplated are: office buildings for general use and office buildings for use by single concerns, a restaurant, an exhibit hall (possibly to be used by the automotive industry for the showing of new models.)

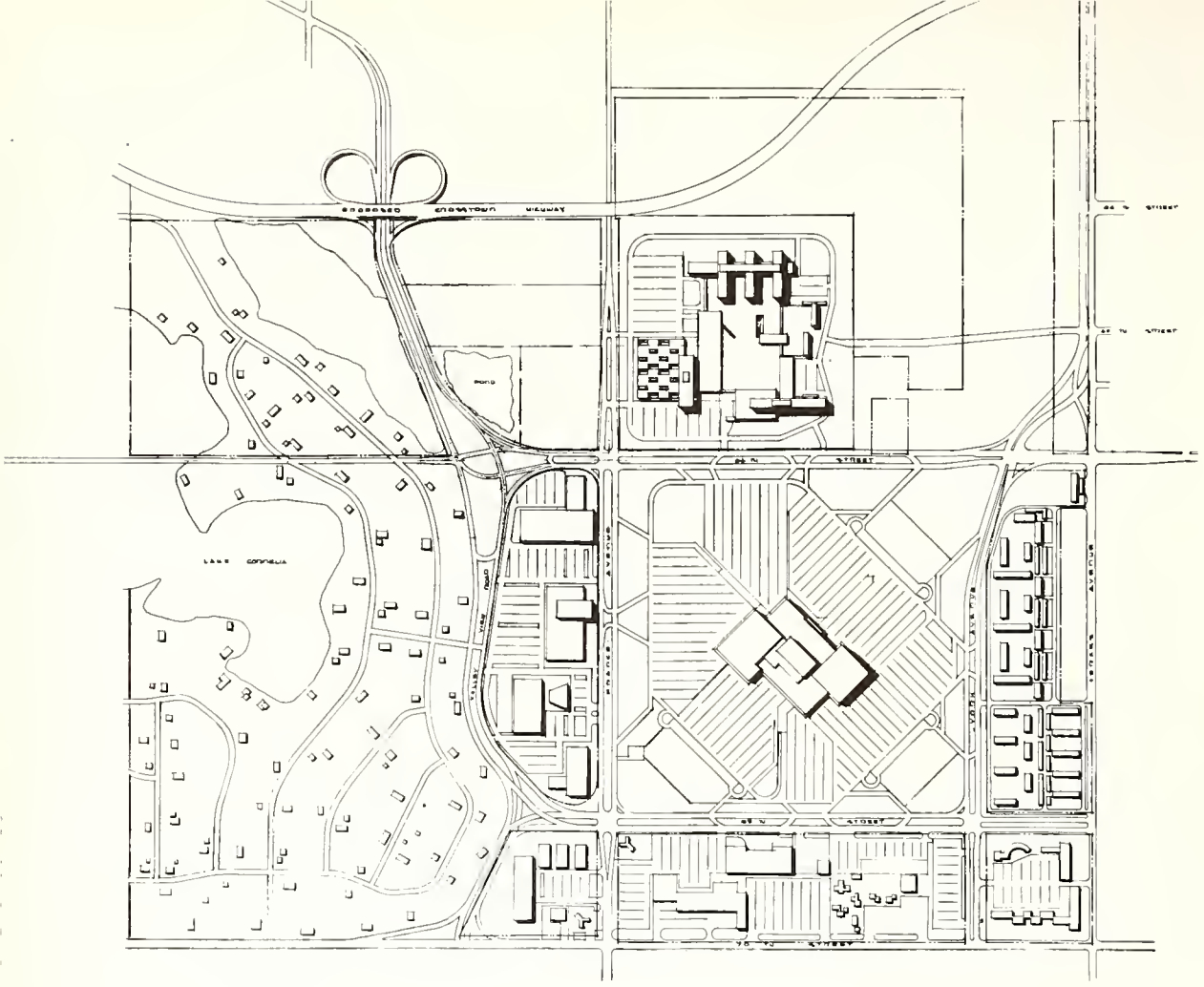
Immediately to the north of the shopping center and adjoining the new Road "B", a site has been set aside for a motor hotel with dining facilities, for the accommodation of salesmen, out-of-town shoppers, and



Master plan for area surrounding Northland Center, indicating usage of the area controlled by the developer.
Architects: Victor Gruen Associates

Office structure for General American Life Insurance Company, constructed in Northland area.
Architects: Victor Gruen Associates
Photograph: Photograph House, Detroit

Office Building for Allstate Insurance Company constructed in Northland area.
Architects: Victor Gruen Associates
Photograph: Photograph House, Detroit



tourists who wish to stop over in the immediate vicinity of the center. The area east of the motor hotel site and to the north of Road "B" is used as a reserve parking lot for employees during peak seasons, especially at Christmas and Easter time. Part of this area is occupied by a 1400-seat theater now operating in its third successful year, and the reserve parking area does duty also as a parking lot for theater traffic.

The area directly to the north of the reserve parking area is designated as a regional health center. Construction of a 300-bed hospital is imminent. It will be augmented by medical office buildings, nurses' quarters, and related facilities.

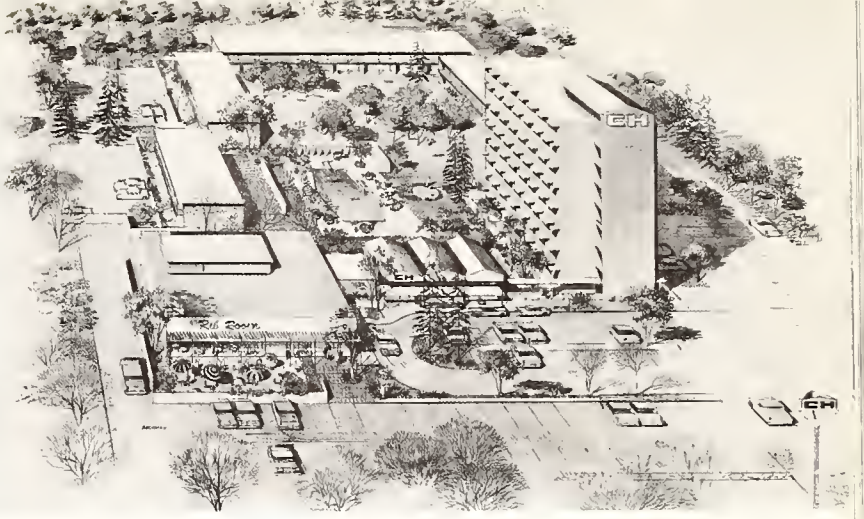
The area to the west of the hospital site has been set aside for single residences and apartments. On its western boundary, where it adjoins the existing low density residential area, the pattern of the latter will be continued, while higher density development in the form of apartments will take place near the hospital in order to provide living units for doctors, and for hospital and shopping center personnel.

The area immediately adjoining the center, to the east along Greenfield Road, is zoned for residential use and therefore no effort was made by the developers to control any land in that area.

The internal road system of the existing residential area to the west of Northwestern Highway was slightly altered in cooperation with the Township in order to prevent shopping center traffic on Northwestern Highway from penetrating into the residential areas. Streets along this busy highway were dead-ended. Access to the residential area is gained from the less travelled highway to the west of the triangular residential area.

The result of master planning and of its implementation has been a very marked increase in real estate values in the existing residential sections, in other surrounding residential sections and for the land owned by the developers. The new facilities that are in the process of being constructed will increase the shopping potential of the center and enhance the character of the entire area, as well as the appearance and prestige of the shopping center itself.

2) *Southdale Center Area, Minneapolis, Minnesota.* A 450 acre plot located between a projected cross-town expressway to the north, the eastern shore of Lake Cornelio to the west, 70th Street to the south and York Street to the east, was acquired by the developers. In cooperation with the Highway Department a new access road was constructed, connecting the entire center area with State Highway No. 100, which is located to the west of the shopping center site. This was done in order



Prototype of motor hotels developed for the Hotel Corporation of America. These hotels are specifically planned for areas surrounding shopping centers and industrial parks.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

Left
Master plan for area surrounding Southdale Center near Minneapolis. The planning is concerned with areas controlled by the developer.
Architects: Victor Gruen Associates

Visualization sketch of apartment development in the Southdale Area.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

One wing of a projected three-wing medical and dental building has been completed in the Regional Health Center area near Southdale.
Architects: Victor Gruen Associates
Photograph: Gridwall Company

to lighten the traffic load on the western portion of 66th Street, which, leading through residential areas, was undesirable as a main access road to the shopping center.

New divided roads surround the center on all sides. The portion of the site that is directly to the north of Southdale Center will be devoted to a 42½-acre apartment area with high-rise and garden-type apartments. On the corner of France Avenue and 66th Street the plan provides for a regional health center consisting of hospital, medical office center and nurses' quarters. (The first structure of the medical office center has been completed.) To the west of France Avenue, along a small lake, a motel and restaurant are projected and directly to the north of it an area is set aside for office buildings. The area to the west of the new divided access road has been developed for single residences, continuing in layout the character of the existing residential area. The 21-acre area to the west of the shopping center, located between the new access road and France Avenue, will be occupied by a cluster of office and recreational buildings surrounded by parking areas.

Two neighborhood shopping centers are planned in the vicinity of Southdale. These neighborhood centers will serve the daily marketing needs of the population in the surrounding area and thus supplement the regional shopping center which provides mainly shopping goods. One of these neighborhood shopping centers will be located to the southwest of the regional center, while the other has already been partly constructed to the northeast of the center.

Directly to the south of the regional center, the development of a "home building center" for the sale of construction materials, gardening equipment, furnishings, etc. is contemplated. This and the adjoining amusement center occupy 24.3 acres and will be connected by a pedestrian bridge to a walkway which leads directly to the regional center. To the east of the regional center a 1.8-acre site has been set aside for a drive-in restaurant, a 9.7-acre site for research laboratories and offices, and a 7-acre site for an automotive area with showrooms and repair shops. No specific use has up to now been designated for a 7.3-acre area to the south of 69th Street. The entire surrounding area is managed by the Southdale Realty Company and its development is being undertaken in stages.

Beneficial results are already evident from the decision to acquire the large land portion surrounding the shopping center and to proceed in accordance with a master plan.

PART II–CHAPTER 5

Planning for Growth

To be successful, a shopping center must be a carefully planned urban organism; therefore, it is evident that where future enlargement is envisaged it should be provided for in the initial planning effort. If such provisions have not been made initially, growth might still be feasible in some exceptional cases if additional land is purchased later on. However, the chances that such growth will be organic and fully successful are greatly reduced. In some cases successful centers have been enlarged by adding structures which had not been projected initially. Inasmuch as no space had been reserved for such growth, new buildings had to consume space previously used for parking. Thus, a feature responsible, at least in part, for the initial success of the center was diminished in its effectiveness. The business volume, not only of the newly added portion but of the entire center, often suffered.

Planning for growth will be discussed here with regard to two main situations: planning for expansion; development in stages.

1) Planning for Expansion. In the majority of cases the entire center is leased and constructed in one operation. All the essential elements which establish a complete shopping center organism are built. However, the opportunity for either expanding individual stores or for adding new stores, or both, is created as a part of the original plan, although this opportunity may or may not be utilized in the immediate or distant future.

2) Planning for Development in Stages. In this instance only a portion of the ultimate plan is carried out in the first stage. Only some of the major elements of the final plan are executed. A definite intention and a tentative time schedule exist for adding one or more leasing and construction stages.

1) Planning for Expansion is indicated when the shopping center is located in a steadily growing area. In such a situation the department store and other major stores will often express the desire to have their stores enlarged when their sales volume reaches a stated figure. When enlargement of a department store takes place it is usually highly desirable for economic reasons, to acquire additional tenants for specialty stores and other enterprises.

In order to make planning for expansion feasible a number of prerequisites must exist. The carrying potential of surrounding public roads must be sufficient to absorb additional traffic loads. The site must be large enough to permit holding space in reserve for additional building, parking and traffic areas, or additionally created income must be such as to justify capital investment for double or multi-deck parking structures at the time of enlargement. Most important of all, the developer, when planning for expansion, must be reasonably certain that his shopping center will be able to benefit from the growing buying potential of the area and that this potential will not be more efficiently served by existing or future competition. If, for example, suitable shopping center sites exist within the trading area the likelihood of such future competition is great. These matters must be carefully considered before a decision to plan for expansion is made.

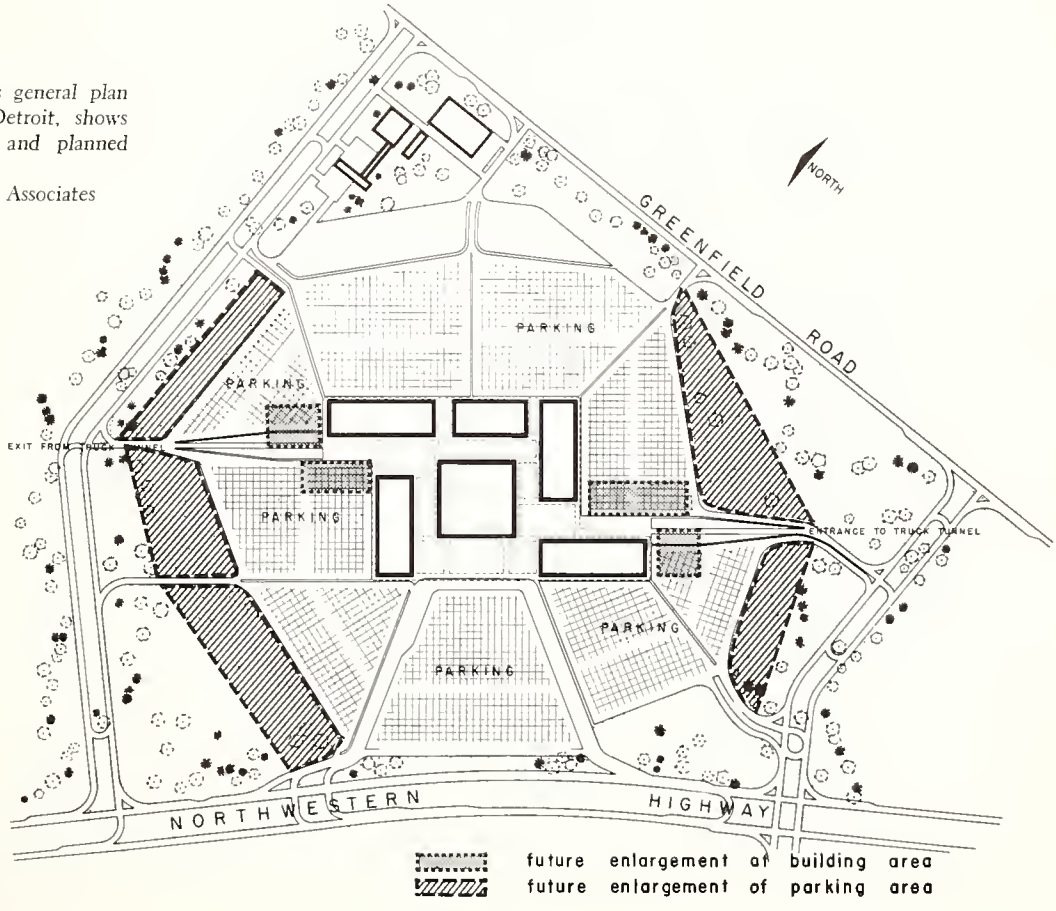
Provisions for future expansion entail certain capital investments which have to be made when initial construction takes place. Thus, planning for expansion is advisable only when there is a reasonable certainity that it can be implemented in the foreseeable future. The possibility of expansion may be important, however, in assuring the retention of a dominant position in the trading area.

If and when it is decided to plan a shopping center with

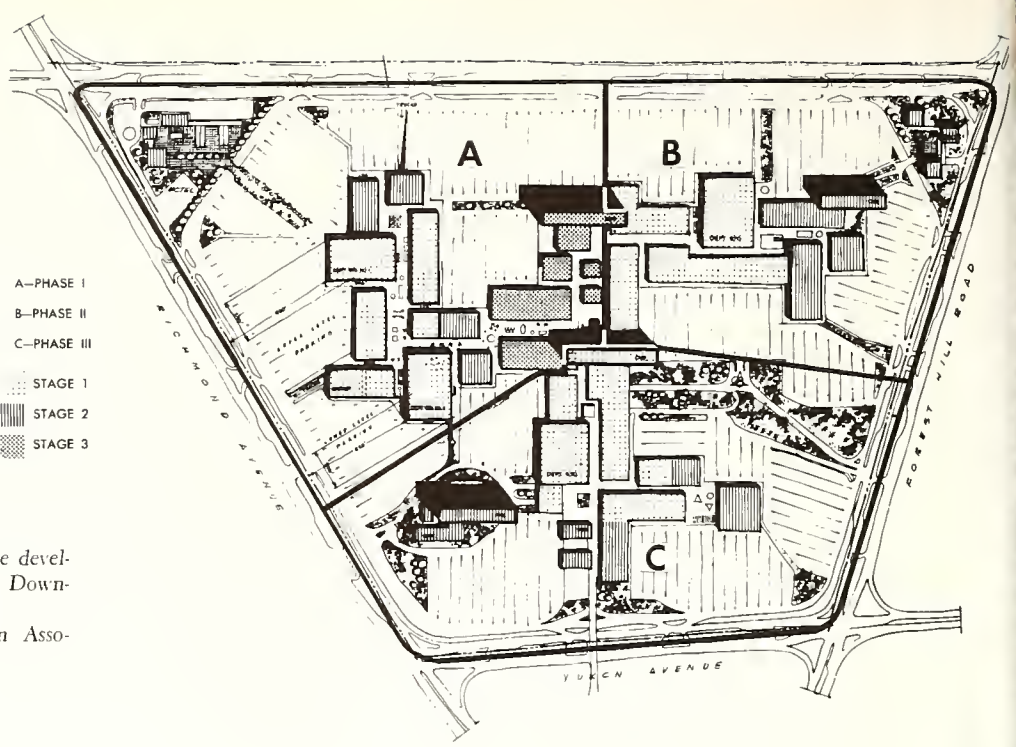
view to expansion, certain measures must be taken. The desire of department stores or other major tenant stores for growth is usually best met by provisions for vertical additions. This requires the construction of larger foundations and heavier columns as well as roof slabs strong enough to carry future floor loads. A wish for horizontal growth is, with rare exceptions, difficult to meet without destroying a well-conceived relationship between shopping center buildings and other elements. Space for additional store groups and their related pedestrian areas and service facilities must be part of the original site plan and must be reserved in such a manner that no vacuum will be created in the shopping center area when originally constructed. Also, planning must be such that the complete integration of these new buildings with the originally constructed center is assured.

Land must be held in reserve for the enlarged parking needs that will be created by expanded shopping facilities. In judging the areas to be held in reserve for this use, consideration should be given to the question of their relation to new or existing shopping center buildings so as not to create over-extended walking distances between parking and pedestrian areas. When original construction is completed these reserve areas will have to be properly landscaped in order not to mar the over-all appearance of the center. When designing and engineering service facilities, utility plants, and distribution systems, provision will have to be made for their expansion proportionate to the growing needs.

Northland Center is a case in point. It was planned for an ultimate size of 1,500,000 square feet of rental area, with original construction of 1,000,000 square feet. A comparison of the two land usage plans of which one shows initial size and the second ultimate size, illustrates how additional tenant store buildings containing approximately 350,000 square feet will be placed; 100,000 square feet can be added to the top floor of the J. L. Hudson Company store. The possibility of enlarging existing individual tenant stores is assured by the fact that all buildings are structurally prepared to take future mezzanines of, altogether, 50,000 square feet. Some tenants have already taken advantage of this opportunity. They have moved non-productive



Plan for expansion. This general plan of Northland Center, Detroit, shows both existing structures and planned expansion.
Architects: Victor Gruen Associates



Master plan for stage-wise development of Staten Island Downtown.
Architects: Victor Gruen Associates

departments to mezzanines and created additional sales areas on the first floor. Parking space lost by the ground area occupied by new tenant stores will be replaced, and new parking needs will be taken care of, by peripheral enlargement of the parking area and narrowing of the buffer green-belt area.

The central air-conditioning and heating plant structures were dimensioned to provide space for additional equipment. All underground utility lines were constructed of sufficient size to meet ultimate needs.

2) **Planning for Development in Stages** is indicated when the shopping center site is located in an area which has not reached its ultimate population potential and where a quick acceleration of population growth may be expected. It is also in order when the existing trading area would support a department store but such a tenant, ready to sign a lease, is not available at the time of planning, although definite expectations exist that this will be the case in the foreseeable future. Another motivation for stage-wise development may be the desire of a land owner to make some immediate use of his land, though it is obvious that full utilization will be practical only in future years.

Planning for development in stages can be successfully accomplished only if a total master site usage plan is completed before construction or even detailed planning of the first stage is undertaken. Thus, location and site must fully satisfy the needs of the total shopping center at all stages as far as size, shape, accessibility, and of course, ultimately expected business potential are concerned.

The most important condition for successful stage-wise development is that each planning and construction stage must by itself represent a complete, well-rounded and sound economic unit.

Such planning requires the utmost foresight and skill from all members of the planning team. They have to act in the face of a large number of uncertainties. Their planning activity proceeds without definite knowledge of whether or when future stages will actually be constructed. Yet their plan must succeed in creating a profitable shopping center whether it be in its initial, its intermediate, or its final stage.

The Staten Island Downtown project, still in the planning stage, is an example. Its site consists of 160 acres; it is located in the geographic center of Staten Island, Richmond County, N. Y. Its outstanding location and a number of favorable conditions expected to materialize in the near future, establish, indirectly, a potential for a major retail and general business center. A new bridge is projected which will connect Staten Island with Brooklyn and thus establish highway access to Manhattan and Queens; an internal system of freeways and highways is planned for the Island. Its routing will establish excellent accessibility of the site from the new bridge, from two existing bridges to New Jersey and from all residential sections of the Island. An accelerated growth of population is expected. It is esti-

nated that the population of Staten Island will reach between 400,000 and 600,000 by 1975.

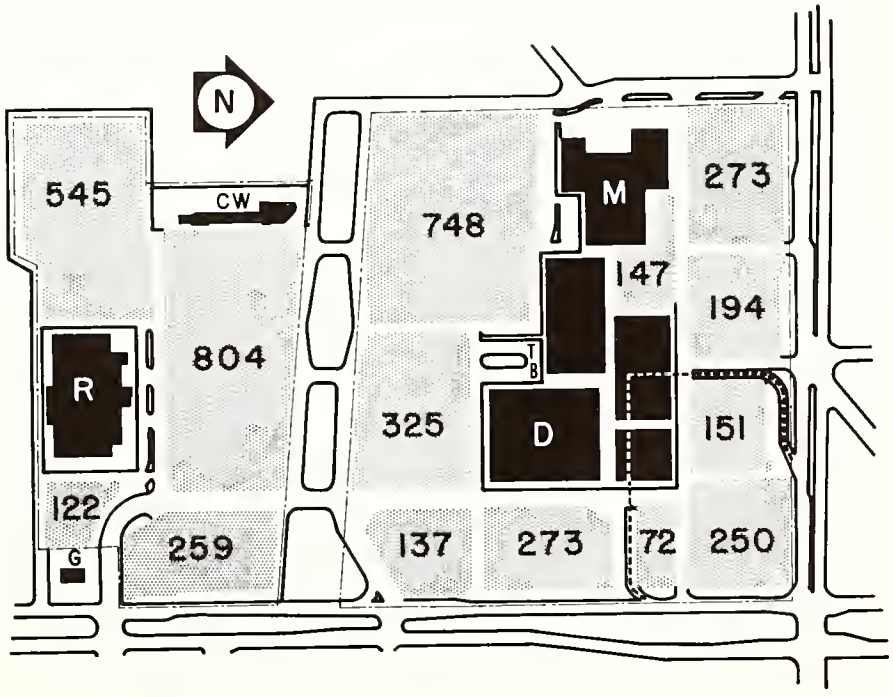
The owner of the land wants to utilize it gainfully as soon as feasible. Stage-wise development is indicated because a buying potential for an intermediate center exists at the present time. Two department stores have expressed definite interest in establishing branches on this site when construction of the Narrows Bridge is completed. Additional demand for merchandising space is expected when the internal highway program is implemented, and a still greater demand in the following five to ten years, when public transportation facilities connecting with other boroughs are constructed.

The master plan concept envisages a three-pronged mall and foresees development in three main phases, each of which is divided into three sub-stages. Thus, nine consecutive stages are projected. The first sub-stage, located near an existing main artery, Richmond Avenue, is planned to comprise approximately 200,000 square feet of rental area and represent a complete community-type shopping center. In the second sub-stage two department store branches of 140,000 square feet each and approximately 300,000 square feet of other retail space will be constructed. The third sub-stage will complete the first main phase of the center. It will consist of enlargements to both department stores and the addition of other retail space, establishing a regional shopping center with approximately 1,000,000 square feet of rental area.

The second main phase will be constructed in the form of an additional mall on the northeastern portion of the site. It will be accessible from Forest Hill Road, which is expected to be completed as a major artery at that time. During this phase a third major department store will be added and the rental area will reach 2,000,000 square feet.

The third phase comprises another major department store branch, additional retail space and, around a newly created plaza projected for the area in which the three malls meet, a number of office buildings, medical buildings, a transportation center and civic structures. The central plaza will be accessible by underground transportation and will be surrounded by subterranean multiple deck garages. Thus, at the time Staten Island Downtown is completed, foot traffic will flow from the central hub area outward toward the extreme ends of the three malls and from the parking areas on the periphery toward the central plaza.

In planning the South Bay Shopping Center, Redondo Beach, Calif., a completely different set of circumstances made stage-wise development necessary. Though the eco-



Master planning for stage-wise development. South Bay Shopping Center, Redondo Beach, California.
Assoc. Architects: A. Quincy Jones, Frederick Emmons; Victor Gruen
Architects for May Company store: Albert C. Martin & Associates

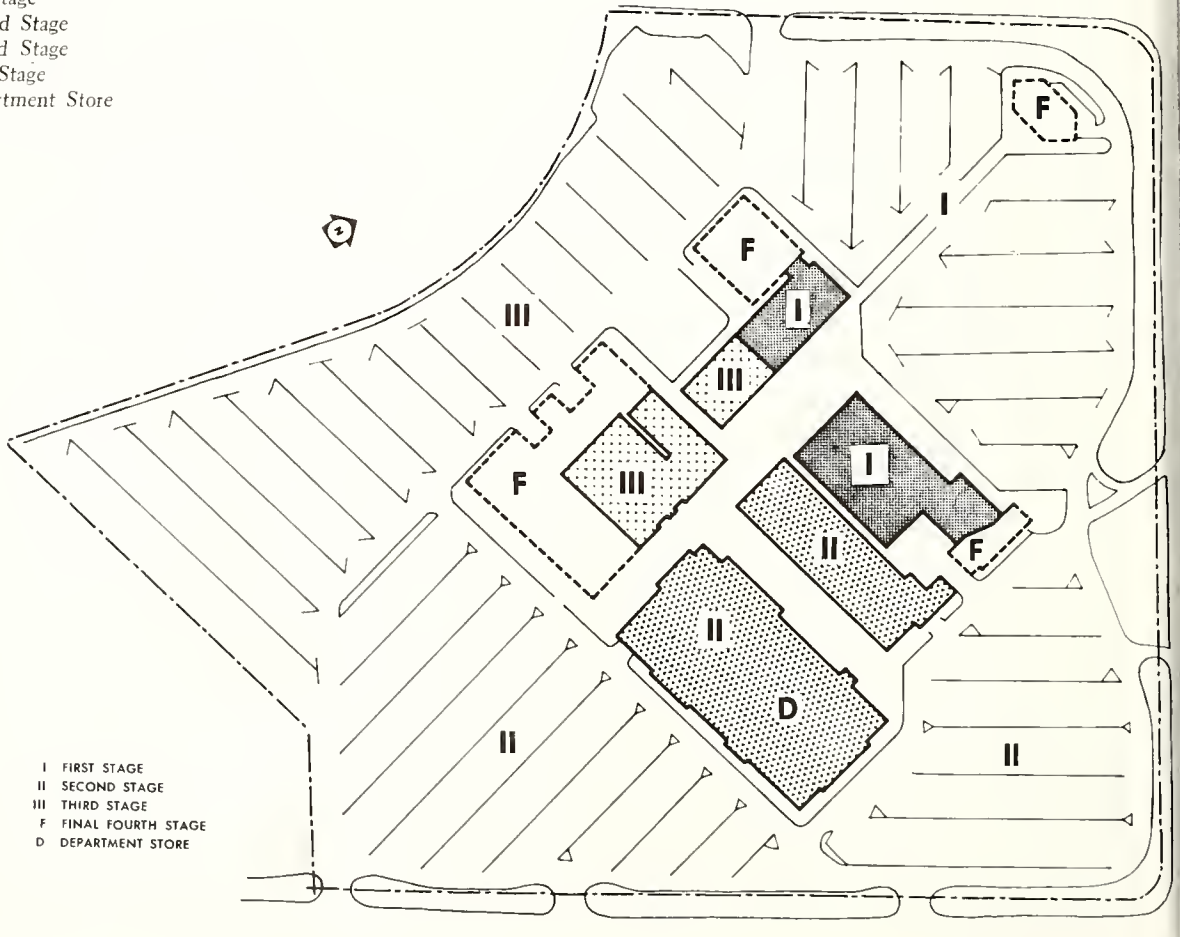
D=Department Store
M=Market
R=Recreational Facilities (bowling alley, restaurant)
CW=Car Wash
G=Gas Station
B=Bus Terminal
T=Taxi Stand

nomic analysis indicated buying potential for a regional shopping center of about 700,000 square feet of rental space, the developer was not able to procure a department store lease due to the fact that all department stores in the general area were heavily engaged in building programs and not ready to negotiate a new lease. A master plan providing for two stages was developed. Accordingly, a first stage establishing an intermediate center consisting of junior department store, variety store, supermarket, drug store and a number of specialty stores, was constructed. The plan for the first stage was so conceived that it could operate by itself successfully. The second stage plan provided for a 300,000 square foot May Company department store and a number of other retail stores. This stage is in construction as of this writing.

Waialae Shopping Center near Honolulu represents success story in stage-wise development. On the basis an over-all master plan it started in 1952 as a neighborhoo center consisting of a supermarket and eight stores co taining, altogether, 35,000 square feet. In 1957 a branch Liberty House Department Store containing 70,000 squa feet and specialty stores comprising 21,000 square feet we added as the second stage. This growth was predicated o expanding population and the construction of a new roa system.

The presence of a department store branch made cor struction feasible, in 1958, of a third stage with a 15,00 square-foot variety store and 10,000 square feet of specialt stores. A final, fourth stage of about 60,000 square feet i contemplated for construction in the near future.

Master planning for stage-wise development. Waialae Shopping Center, Honolulu, Hawaii.
I=First Stage
II=Second Stage
III=Third Stage
F=Final Stage
D=Department Store



PART II–CHAPTER 6

Planning for Traffic

Traffic planning is an integral part of planning the site and the surrounding area. It is discussed separately because of its specialized nature and the outstanding role it plays in the proper functioning and success of the shopping center.

In spite of its specialized nature, however, it should not be assumed that traffic planning is a field entirely reserved for the specialist, the traffic engineer, or the traffic expert. Basic traffic planning concerns the planning team as a whole and the architect in particular.

When considering the question of traffic it is essential to keep in mind that the shopping center is not to be planned to serve traffic; rather, traffic is to be planned to serve the shopping center.

In selecting the site (Part I, Chapter 3) serious consideration must be given to its accessibility. Before a site is finally decided upon, it is essential to gather all information about existing roads and the traffic-carrying capacities of the surrounding road system, as well as to establish the expected additional traffic load generated by the new shopping center. During the fact-finding period, information on the following conditions will have to be assembled through the cooperation of architect, real estate consultant, and traffic engineer:

a) Points of origin of shopping center traffic. Here the real estate consultant's cooperation will be essential and his analysis will provide information about the trading area of the shopping center and the number of persons who will approach it from various directions.

b) The routes which customers from the various points of origin are most likely to follow when approaching the site.

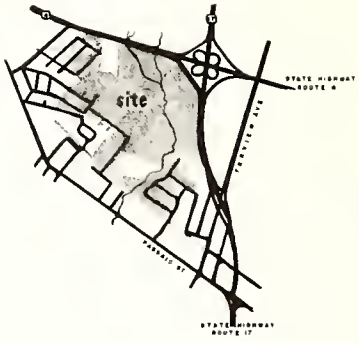
c) Information concerning existing traffic loads on such approach roads and especially the existing hourly traffic loads which coincide with the peak traffic hours of the shopping center itself.

d) Expected critical traffic conditions for peak traffic hours, based on listings of combined peak loads for incoming and outgoing traffic for shopping days, with and without night openings, as well as existing traffic at the same hours.

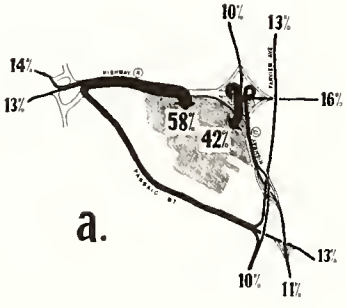
Once these data are assembled, the second period, or period of analysis, can begin. Collected facts and figures are organized and analyzed with reference to their influence on the project. If it can be proven that existing approach roads will be able to carry the critical peak loads in addition to existing traffic loads, then a decisive factor contributing toward the feasibility of a shopping center project will have been established. In estimating the capacity of each road the traffic engineer is guided by the number of lanes and by road characteristics such as surfacing, number of cross streets, signals, etc. Should the analysis prove that the traffic capacity of the surrounding roads in general or in specific instances is not sufficient to carry the combined traffic during peak hours, then important corrective steps must be considered. In extreme cases the specific site may have to be rejected and another site with more satisfactory conditions substituted. In less extreme cases improvements of specific roads or crossings will have to be proposed and negotiated with the proper authorities (Federal, state, county, city or community traffic departments.) The cost of such necessary improvements may be assumed by public agencies or it may have to be totally or partially under-

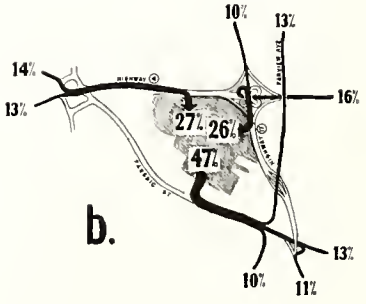
The following eleven maps and charts are from the Traffic Analysis Report by Victor Gruen Associates for Garden State Plaza Shopping Center, Paramus, New Jersey

Location of proposed shopping center and means of access.



Existing road pattern around site.

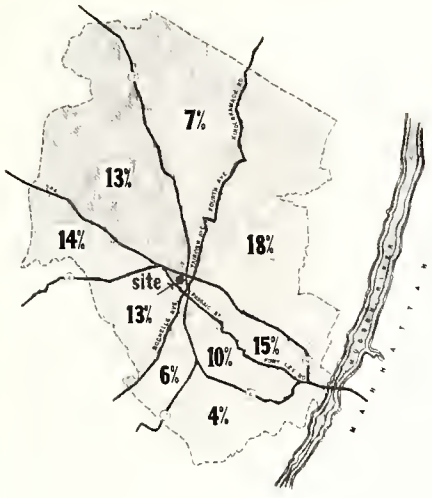




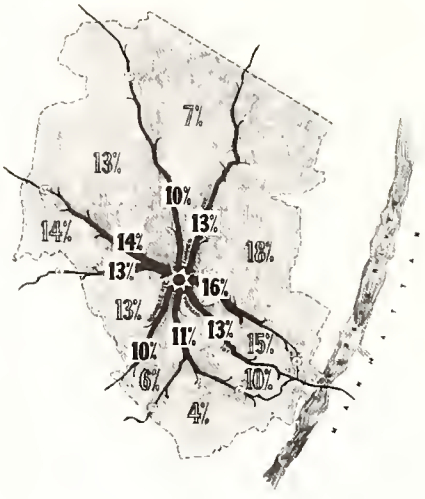
Terminal conditions at shopping center site.

written by the shopping center, in which case costs of these improvements have to be considered as additions to the land acquisition cost. The new total cost will then have to form the basis of the economic feasibility analysis.

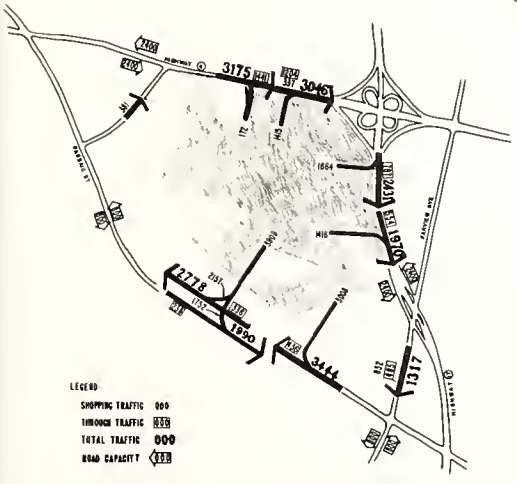
The quantity of traffic which can be carried by the roads surrounding the shopping center site is only one of the criteria by which accessibility has to be measured. A second criterion is the quality of that traffic.



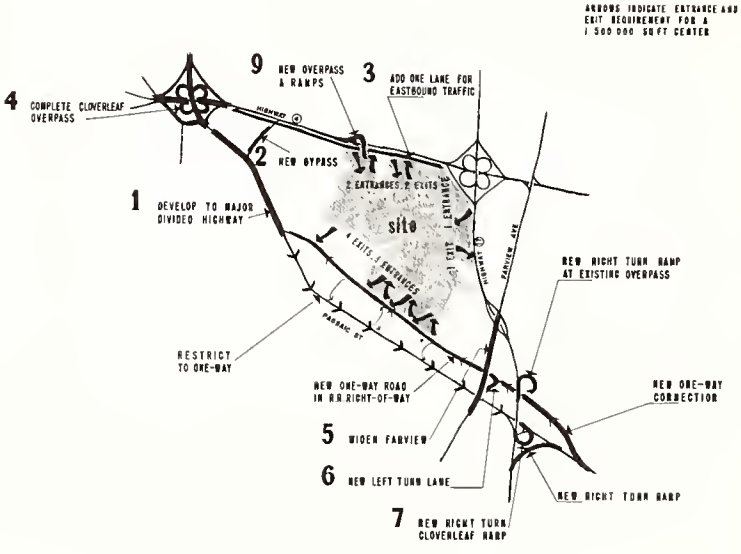
Trade area indicating areas of origin of shoppers.



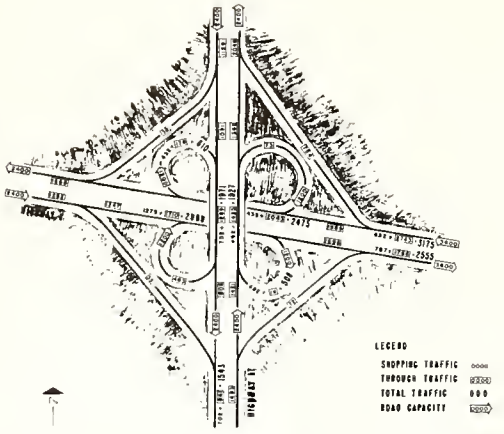
Trade routes on which shoppers from areas of origin can be expected to travel.



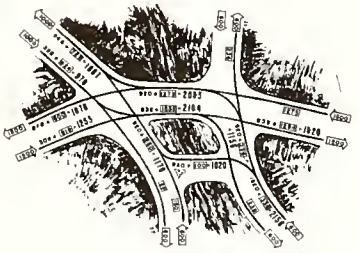
Pattern of traffic transfer between boundary roads and site.


ARROWS INDICATE ENTRANCE AND EXIT REQUIREMENT FOR A 1 500 000 SQ FT CENTER
9 NEW OVERPASS & RAMPS
3 ADD ONE LANE FOR EASTBOUND TRAFFIC
4 COMPLETE CLOVERLEAF OVERPASS
2 NEW BYPASS
2 ENTRANCES, 2 EXITS
1 DEVELOP TO MAJOR DIVIDED HIGHWAY
site
1 EXIT, 1 ENTRANCE
4 EXITS, 4 ENTRANCES
NEW RIGHT TURN RAMP AT EXISTING OVERPASS
RESTRICT TO ONE-WAY
NEW ONE-WAY ROAD IN RR RIGHT-OF-WAY
NEW ONE-WAY CONNECTION
5 WIDEN FAIRVIEW
6 NEW LEFT TURN LANE
NEW RIGHT TURN RAMP
7 NEW RIGHT TURN CLOVERLEAF RAMP

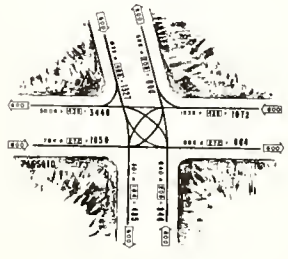
Recommended highway improvements necessary to correct conditions where existing road capacity is lower than combined expected traffic load.



HIGHWAY 4 AND HIGHWAY 17

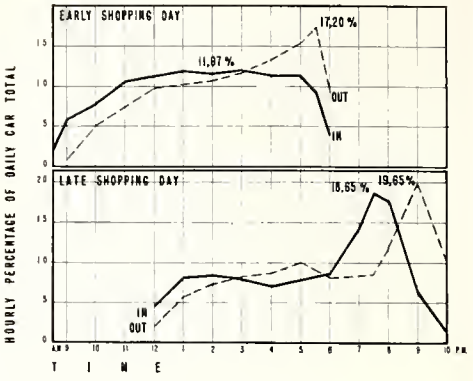


HIGHWAY 4, SADDLE RIVER ROAD, PASSAIC, AND PARAMUS

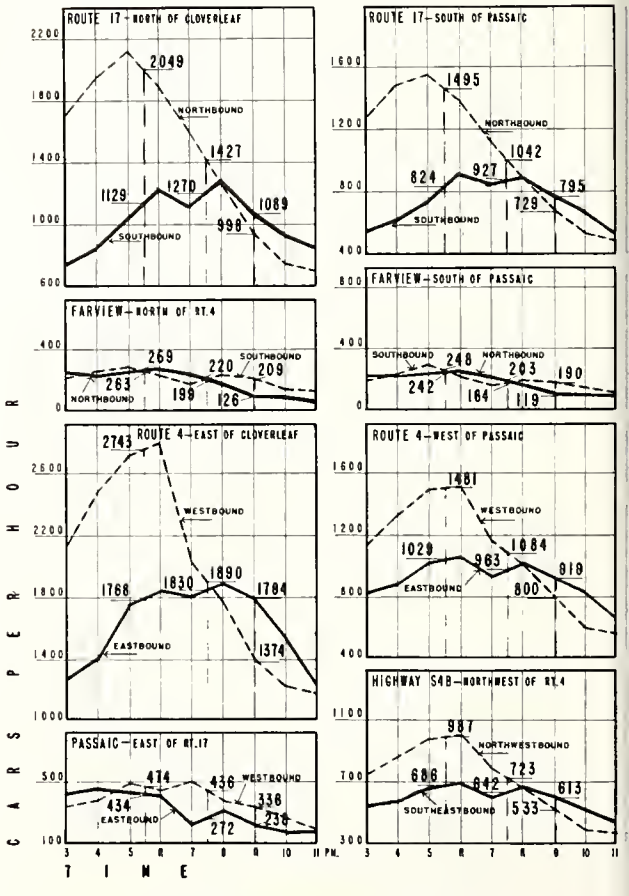


FARVIEW AND PASSAIC

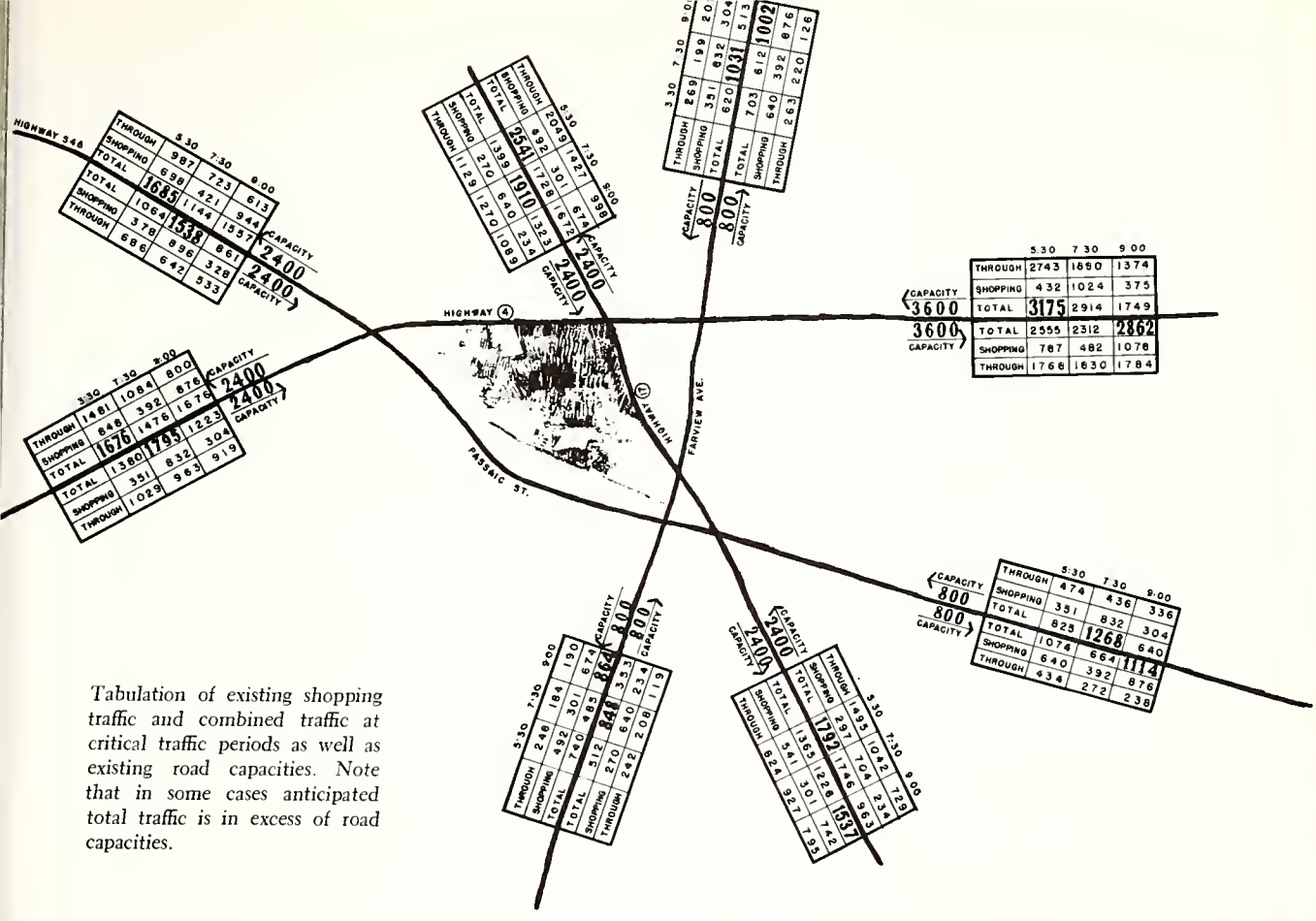
Detailed maps of traffic conditions at critical intersections, to be expected when shopping center is completed.



Projected traffic fluctuations for normal shopping days and for shopping days with night openings.



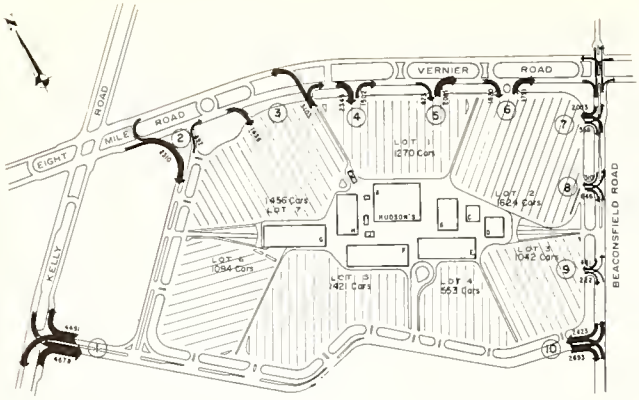
Existing traffic loads on approach roads.



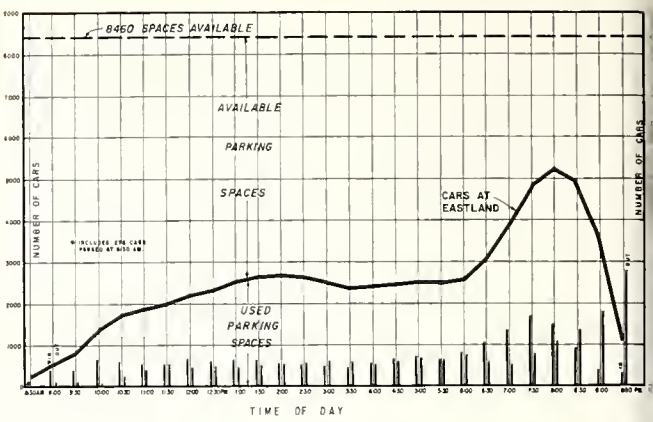
Tabulation of existing shopping traffic and combined traffic at critical traffic periods as well as existing road capacities. Note that in some cases anticipated total traffic is in excess of road capacities.

Because it appears obvious that an adjoining high-speed road system would facilitate access to a shopping center, locations immediately adjoining express roads or throughways are often considered favorably by developers. The question arises whether this traffic is of the desirable quality. High-speed roads, like railroads, offer a chance to travel fast over long distances, to travel between cities and towns rather than within an urban or suburban area. They primarily serve through traffic as distinguished from local traffic. (To persuade the driver of a through car speeding along at 60 miles an hour to get off the freeway and do some shopping is nearly as tough as to persuade the engineer of a streamlined train to stop in order to pick flowers.)

Road pattern and traffic area now existing at Garden State Plaza, Paramus, New Jersey.
Architects: Abbott Merkt & Co.
Photograph: Felix Gilbert



Total Lot Capacity = 8460 Cars



Traffic survey for Eastland Center, Detroit, showing actual transfer conditions of automobiles from public road system to site. Architects: Victor Gruen Associates

Use of parking areas of Eastland Center, Detroit, on June 5, 1958 between 8:30 a.m. and 9:30 p.m. Note peak hours and the especially large amount of outgoing traffic at 9:30 p.m. Also, note that the parking area during this season of the year and on this particular day of the week is in use to full capacity at any time. This and the following seven illustrations are from a traffic report by Lloyd B. Reid, Traffic Engineering Consultant.

Origin of vehicles traveling to Eastland Shopping Center, Detroit, in accordance with actual traffic conditions on June 5, 1958.

Inasmuch as shopping centers depend heavily on local traffic, high-speed traffic is qualitatively less desirable than low-speed traffic. Thus the advantages which may be derived from a site directly adjoining a high-speed freeway should not be overestimated. A location which is a distance of from one-half mile to two miles removed from exit and entrance ramps of a freeway will allow for an orderly transfer from high-speed motorways to lower-speed roads and therefore may, in many cases, prove preferable.

Once the work of the planning team has shown that the surrounding road network is of the desirable quality and able to carry the established quantity of peak traffic loads without undue congestion and when all simultaneously conducted investigations concerning the suitability of the site have been concluded with positive results, then the task of traffic planning can begin. Suburban shopping centers, more than any other building type except garages and parking decks, are the direct result of mass transportation by automobile. Without the existence of such mass transportation the planned suburban shopping center as we know it would have no reason to exist. It is significant that plans for suburban shopping centers which were projected for Australia, Europe and other parts of the world were postponed until a ratio of car ownership per capita of population approaching at least 50% of that in the United States was reached.

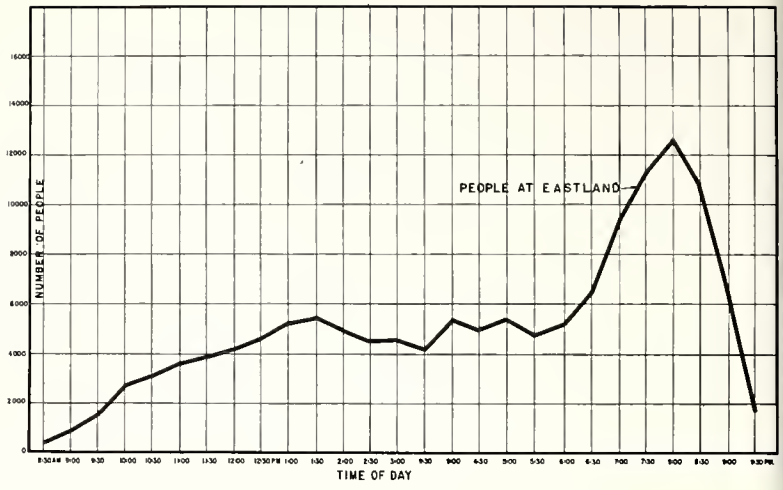
Because the suburban shopping center is the child of the automobile age, the greatest attention has to be paid to traffic planning, with the aim of bringing about a perfect relationship between mechanized transportation and all aspects of the shopping center. In the traffic planning task the architect will avail himself of the assistance of a traffic engineer. This, however, should not free the architect from the responsibility for traffic planning which is part of the general planning of the center. A specialist should not be expected to furnish basic concepts but should assist the architect in finding solutions within the framework of general and specified planning aims.

The Aims of Traffic Planning

1) Easy Traffic Flow on the Surrounding Road System. Aside from the quality of the road system itself, the ease of traffic flow will greatly depend on the characteristics of land usage on both sides of the roads. The existence of enterprises which would result in a constant entering and exiting of automobiles along the roads opposite the shopping center would effectively disturb easy flow of traffic and is therefore highly undesirable. This is one of the circumstances which makes proper planning of the surrounding area (Part II, Chapter 4) so important. The existence of a large number of side roads opposite the shopping center

Number of cars entering and leaving Eastland Center, Detroit, by thirty minute periods on Thursday, June 5, 1958 between 8:30 a.m. and 9:30 p.m.

PERIOD	STATION NUMBER 1 IN	1 OUT	2 IN	2 OUT	3 IN	3 OUT	4 IN	4 OUT	5 IN	5 OUT	6 IN	6 OUT	7 IN	7 OUT	8 IN	8 OUT	9 IN	9 OUT	10 IN	10 OUT	TOTAL INBOUND	TOTAL OUTBOUND	TOTAL ACCUMULATION
8:30 AM - 9:00 AM	101	41	26	1	42	21	45	4	9	23	107	17	33	1	10	1	7	1	38	12	418	122	572*
9:00 AM - 9:30 AM	102	35	43	2	38	13	40	6	18	5	39	4	32	4	7	2	10	0	49	32	378	103	847
9:30 AM - 10:00 AM	149	22	83	2	48	13	96	12	38	9	58	6	66	2	7	1	16	1	100	19	661	87	1421
10:00 AM - 10:30 AM	145	70	82	4	39	43	72	20	30	18	40	38	84	3	8	10	16	6	86	36	602	248	1775
10:30 AM - 11:00 AM	133	120	64	7	51	63	79	28	23	48	59	38	63	5	10	13	20	6	57	87	559	415	1919
11:00 AM - 11:30 AM	138	112	70	11	47	52	83	39	19	64	43	51	61	15	11	19	23	9	60	86	555	458	2016
11:30 AM - 12:00 NOON	145	117	81	3	64	109	64	33	37	43	90	41	81	17	23	8	19	7	77	75	681	453	2244
12:00 NOON - 12:30 PM	154	127	58	1	44	96	60	36	34	48	71	54	96	16	11	20	13	14	73	82	614	494	2364
12:30 PM - 1:00 PM	165	111	73	9	47	74	70	37	37	56	61	56	67	16	10	26	21	8	96	62	647	455	2556
1:00 PM - 1:30 PM	164	146	74	5	43	79	80	28	40	64	56	61	64	15	9	23	26	12	79	78	635	511	2680
1:30 PM - 2:00 PM	142	127	61	2	43	116	73	30	37	54	43	70	76	22	5	27	14	7	72	77	566	532	2714
2:00 PM - 2:30 PM	133	138	80	7	25	99	81	56	27	53	33	59	55	18	7	18	19	8	70	104	530	560	2684
2:30 PM - 3:00 PM	109	159	49	7	42	116	64	53	23	59	49	64	68	11	8	25	21	4	52	112	485	610	2559
3:00 PM - 3:30 PM	121	141	54	22	35	121	44	43	19	70	35	57	54	22	9	14	8	9	64	86	443	585	2417
3:30 PM - 4:00 PM	134	153	63	7	34	87	79	36	15	65	50	66	81	18	9	22	15	11	86	70	566	535	2448
4:00 PM - 4:30 PM	184	163	79	12	54	100	86	45	25	71	55	63	62	29	11	23	20	6	84	97	660	609	2499
4:30 PM - 5:00 PM	173	162	86	13	56	137	106	53	45	93	67	57	77	21	11	20	14	5	94	124	729	685	2543
5:00 PM - 5:30 PM	138	166	77	13	65	135	99	30	33	83	75	55	62	17	11	10	17	13	80	124	657	646	2554
5:30 PM - 6:00 PM	236	173	117	12	64	161	119	52	37	66	58	119	79	21	10	28	17	12	93	117	830	761	2623
6:00 PM - 6:30 PM	335	160	173	23	71	113	130	38	40	42	43	70	132	20	16	17	19	7	110	100	1069	590	3102
6:30 PM - 7:00 PM	351	148	215	9	120	106	169	43	50	63	96	63	140	14	16	23	28	4	179	62	1364	535	3931
7:00 PM - 7:30 PM	441	188	243	12	135	164	217	70	66	78	165	71	162	16	33	37	41	7	209	138	1712	781	4862
7:30 PM - 8:00 PM	373	287	187	15	120	220	155	89	78	80	130	88	150	25	22	48	31	6	253	217	1499	1075	5286
8:00 PM - 8:30 PM	231	379	105	31	52	275	118	127	48	130	51	126	98	41	19	53	21	7	162	172	905	1341	4950
8:30 PM - 9:00 PM	113	478	50	36	26	289	62	168	25	212	21	166	39	53	5	59	14	13	60	320	415	1794	3571
9:00 PM - 9:30 PM	68	568	17	126	31	303	54	326	20	484	25	231	21	116	12	99	11	39	40	504	320	2796	1095
TOTALS	4678	4491	2310	392	1436	3105	2345	1502	873	2081	1620	1791	2003	558	310	646	481	222	2423	2993	18,479	17,781	——



Number of people present in Eastland Shopping Center, Detroit, at various hours on June 5, 1958.

would also have the effect of interfering with good traffic flow. An important measure to further the easy flow of traffic is the widening of roads along all boundaries of the shopping center and it is often worthwhile to contribute land free for this purpose. Perhaps the most important contribution a planner can make to avoid congested traffic conditions around the center, is to see to it that automobiles can enter the site without slowdowns.

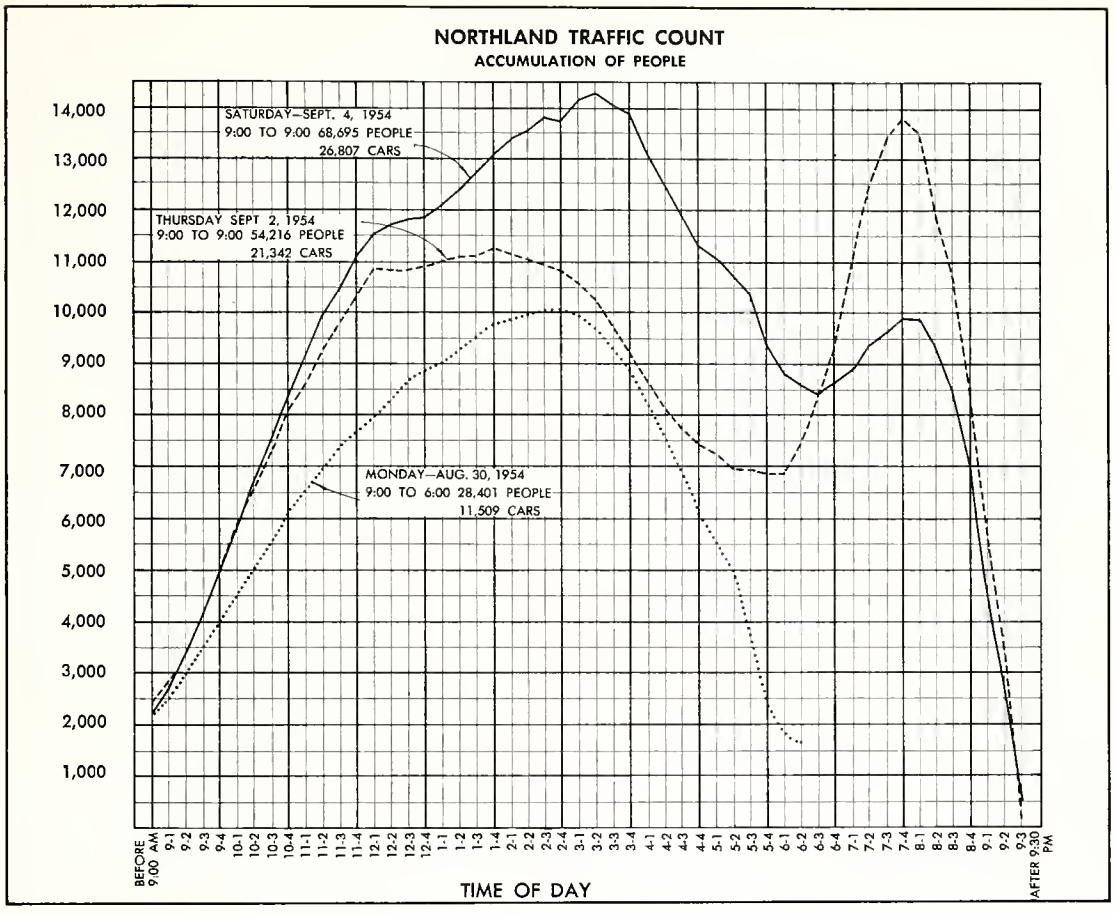
EASTLAND TRAFFIC SURVEY
TABLE VI
PEDESTRIANS ENTERING EASTLAND
Thursday, June 5, 1958—8:30 A.M. to 9:30 P.M.

STATION NUMBER	PEDESTRIANS IN	PEDESTRIANS OUT
1	352*	140
2	40	56
3	63	47
4	15	28
5	1	4
6	4	4
7	28	31
8	5	5
9	37	28
10	399	337
Totals	944*	680

*Includes 153 students.

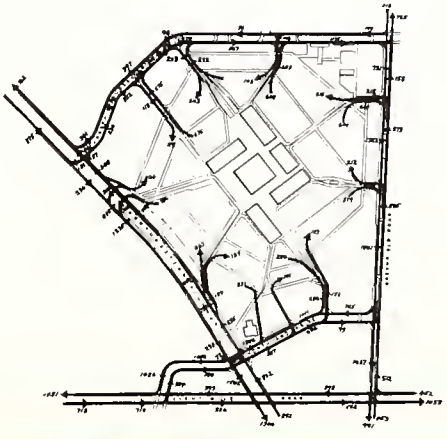
EASTLAND TRAFFIC SURVEY TABLE VIII
TRUCK ROAD USAGE BY 30 MIN. PERIODS
Thursday, June 5, 1958—8:30 A.M. to 8:30 P.M.

PERIOD	VEHICLES IN	VEHICLES OUT
8:30 A.M.-9:00 A.M.	14	14
9:00 A.M.-9:30 A.M.	15	17
9:30 A.M.-10:00 A.M.	19	20
10:00 A.M.-10:30 A.M.	24	12
10:30 A.M.-11:00 A.M.	17	24
11:00 A.M.-11:30 A.M.	29	20
11:30 A.M.-12:00 N.	27	16
12:00 N.- 12:30 P.M.	26	28
12:30 P.M.-1:00 P.M.	25	21
1:00 P.M.-1:30 P.M.	22	25
1:30 P.M.- 2:00 P.M.	22	13
2:00 P.M.-2:30 P.M.	21	27
2:30 P.M.- 3:00 P.M.	18	23
3:00 P.M.-3:30 P.M.	14	19
3:30 P.M.-4:00 P.M.	12	19
4:00 P.M.-4:30 P.M.	19	14
4:30 P.M.-5:00 P.M.	3	15
5:00 P.M.-5:30 P.M.	8	7
5:30 P.M.-6:00 P.M.	10	14
6:00 P.M.-6:30 P.M.	3	2
6:30 P.M.-7:00 P.M.	4	1
7:00 P.M.-7:30 P.M.	2	2
7:30 P.M.-8:00 P.M.	2	6
8:00 P.M.-8:30 P.M.	1	1
Totals	357	360

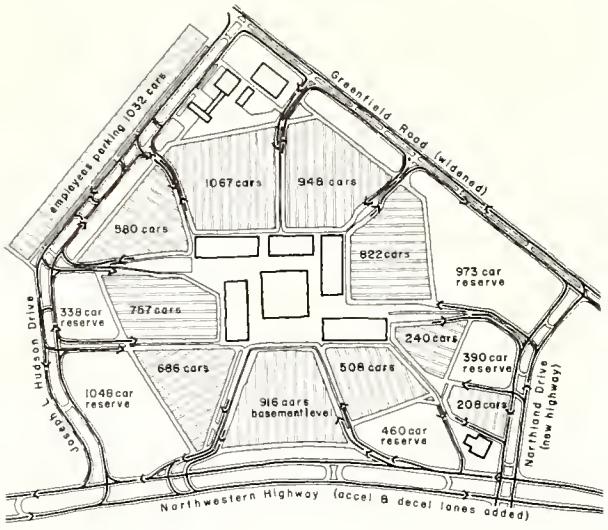


Traffic count for Northland Shopping Center, Detroit, on three days of the week. Note that Monday, on which Center was closed at 5:30 p.m., has very different traffic pattern from Thursday which had a night opening. Saturday, which also had a night opening, shows a distinctly different pattern from other weekdays.

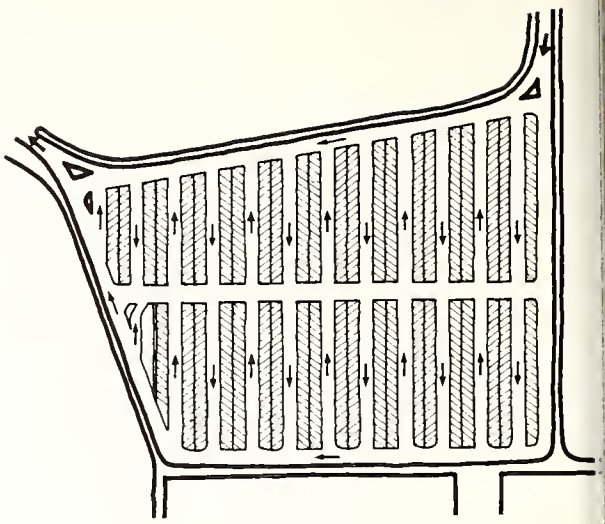
Incoming and outgoing traffic on a shopping day with night opening between 9 p.m. and 10 p.m. Northland Shopping Center, Detroit.



2) Effective Transfer of Road Traffic onto the Shopping Center Site. It is obvious that if automobiles were to be driven directly from an adjoining highway onto parking-lot lanes, chaos would result. Obstructions would be created by cars which are in the process of moving into parking stalls; cars behind them would have to wait, forming long lines of automobiles on the public road system. Thus, the role of magazine roads which can double as circulatory roads is an extremely important one. They function as turn-off lanes from the highway, making possible a gradual change of speed from fast-moving road traffic to slower parking-lot traffic.

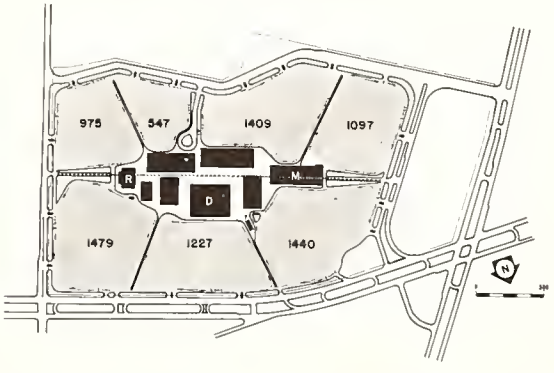


Schematic Site Plan for transportation area of Northland Center, Detroit, showing parking lots, reserve parking areas, accessibility and circulation.
Architects: Victor Gruen Associates



Distribution of traffic on site. An individual parking lot at Northland Center, Detroit.
Architects: Victor Gruen Associates

Entrance and exit points leading to and from the internal road system must be well removed from highway crossings. A minimum of 400 feet, and if possible, 600 feet, is indicated as the desirable distance of exits and entrances from major intersections. Even more important than the provisions for transfer from the road system to the site are those in the opposite direction, from the site to the road system; exit traffic shows considerably sharper peaks than entrance traffic. When night openings are held, extremely heavy demands on the road system will occur. At closing time a mass exodus of shoppers will take place, aggravated by a nearly simultaneous mass exit of employees. If analysis shows that such peak-hour exit traffic cannot be handled properly, the device of staggered closing hours will have to be considered. It is usually possible to arrange for later closing of all eating facilities, of food and drug stores. In extreme cases, it might be advisable to stagger closing hours of the department store and other tenant stores. By applying such measures it is possible for peak exit traffic, which would normally take place within a half-hour period, to be spread over one or two hours.



Transportation area of Eastland Shopping Center, Detroit, showing layout of parking areas and circulation pattern. Pickup station for the J. L. Hudson Company marked P.
Architects: Victor Gruen Associates

3) Even and Effective Distribution of Traffic on the Site. The customer should be given a free choice to drive to any of the parking areas which surround the center so that he may come as close as possible to the store where he intends to make his first purchase. Secondary traffic movements within the parking area must be facilitated. Such secondary movements occur when a shopper wishes to pick up bulky merchandise, such as food purchases or home furnishings. The successful operation of supermarkets, especially in regional shopping centers, is greatly assisted by the ability of shoppers to drive conveniently to market pick-up stations immediately before leaving the center.

Circulatory traffic is developed in considerable volume in larger shopping centers and arrangements must therefore be made to guarantee its easy flow, avoiding any interference with pedestrians walking to and from the center's structures. Circulation roads, therefore, are most effectively

arranged near the outer edges of the site, removed sufficiently, however, from the property line to allow traffic to swing in and out easily from public roadways. The area between the perimeter circulatory drive and the roadway is ideally suited for a landscaped buffer area. In some cases a second circulatory driveway is arranged as a loop near the halfway line of the depth of the parking area, thus dividing the total parking area into an inner and an outer zone. The inner zone can be dimensioned in such manner that it satisfies the parking needs existing during periods of normal business activity while the outer zone might act as overflow parking area for hours of high shopping activity.

Some regional centers feature circulatory roadways immediately surrounding the building core itself. Arguments in favor of such an arrangement are that such drives permit window-shopping from slow driving cars and afford the opportunity for customers to be brought to and picked up from the stores These possible advantages seem small when compared with the disadvantages they entail for pedestrians and drivers alike. Inasmuch as circulatory roads carry highway type traffic volumes, the necessity for their crossing by all shoppers coming from or returning to parking areas creates dangers and traffic congestion. How serious these conditions are is illustrated by the fact that in at least one regional shopping center which has an inner circulatory road, traffic signals had to be installed to make pedestrian crossings safe. In another case a car out of control created damage and injury to property and persons.

Circulatory roadways may be planned for one-way or two-way traffic. In deciding between the two systems, the readiness of shoppers to follow traffic directions must be taken into consideration. This often depends on the degree to which one-way street systems have been introduced in a community.

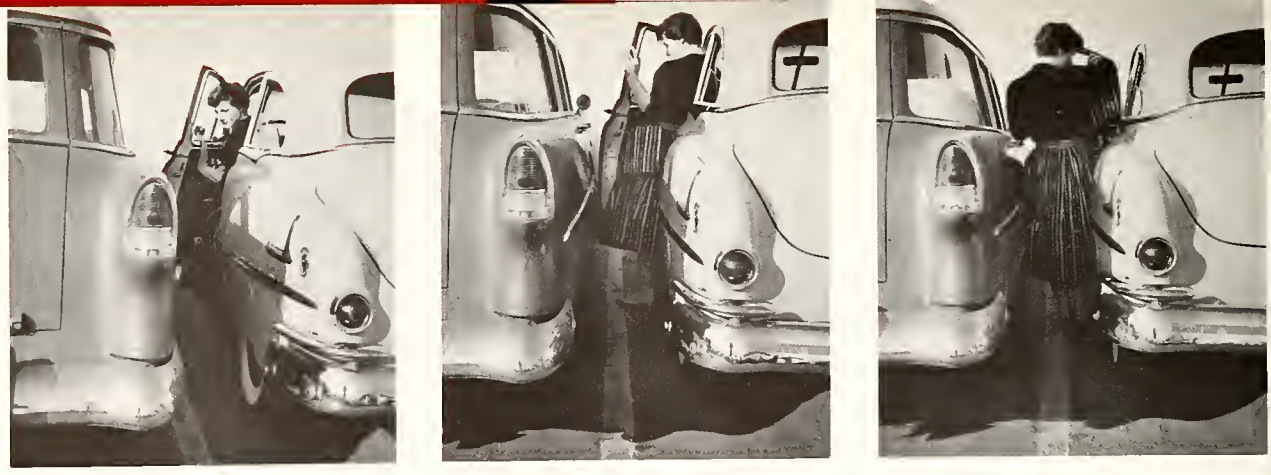
4) Convenient and Efficient Arrangement of Car Storage Facilities. There exist as many theories about the arrangement of parking lots as there are experts. 90° parking, 45° parking, 30° parking, parking arrangements with curbs, without curbs, and all possible varieties of these possibilities, have their stout defenders. However, a few principles which have general validity can be stated.

The aim of the parking lot layout for a shopping center should not be to achieve the greatest possible number of parking stalls, but rather to assure the greatest possible turnover of cars during a given period of time. When measured against the only important criterion — how many shoppers will be able to visit the shopping center within the shopping day—the number of parking stalls indicated on the plan, or even on the pavement, is not decisive. What is important, however, is how quickly the parking stalls can be filled and emptied. Thus, parking capacity is a valid measuring stick only if it denotes the number of conveniently arranged and dimensioned parking stalls.

The function of a parking stall in a shopping center is different from the function of a parking stall in a garage or the all-day parking lot of an industrial or business enterprise; therefore its arrangement and dimensions must also be different. In contrast to parking stalls serving non-shopping facilities, the shopping center parking stall has a large turnover. It may vary between 2 and 10 per day. Since the turnover is so rapid parking should be made easier to accomplish in shopping center parking lots than in non-shopping parking areas. The parked car in a shopping center is often entered when the shopper has his arms filled with merchandise. Some of it may go into the trunk and some inside the

Pickup station for supermarket at Northland Center, Detroit, located within the transportation area. Sold merchandise is moved by underground conveyor through basement of supermarket to pickup station where it is loaded into customers' cars.
Architects: Victor Gruen Associates
Photograph: Ben Schnall

Separation between parking stalls is indicated by double line painted on pavement in order to ease parking operations. Note specially designed tall lighting standards. Bay Fair Shopping Center, San Leandro, California.
Architects: Victor Gruen Associates



Narrow parking stalls are inconvenient.

car. For this reason it must be possible to open car doors sufficiently wide to make the loading operation convenient without doing damage to an automobile parked in an adjoining space. Therefore, parking stalls must be especially wide.

Only in the rarest cases is the parking operation in shopping centers carried out by skilled personnel. Therefore, imperfect driving skills must be taken into consideration. If this is not done, total parking capacity will be diminished by time and space losses. Time is lost when complicated and difficult back-up operations are necessary. A dozen cars may have to wait in the parking lane in order that one unskilled driver may maneuver a car in or out of a narrow or poorly arranged parking stall. Loss of over-all capacity will occur when parkers, because of narrow stalls, straddle lines and therefore create a condition in which fewer cars can be parked than the theoretical pattern indicates. That the greatest convenience should be provided in the layout of parking areas is not just an expression of a polite gesture towards shoppers, but a measure of great economic consequence. Observations have shown that in many instances parking areas with certain stated capacities on paper do not by any means accommodate the calculated number of cars. It is therefore recommended that over-all parking needs should be established not on the basis of a ratio between square footage of rental area to square footage of parking area, but rather on the basis of car stalls per 1,000 square feet of rental area.

In order to extract the greatest benefit from this measuring method, it must be tied to qualitative standards for parking arrangements.

a) Parking is easier, quicker and more accurate on lots with stalls arranged at 45° angles than on those set at 60° or 90° angles.

b) Stalls with ample width will speed parking operation, will avoid space-wasting straddling of lines, and will allow car doors to be opened without damage to neighboring automobiles. The following stall widths are suggested:

Angle	Minimum	Norm	Maximum
90°	8′-6″	8′-9″	9′- 0″
60°	8′-4″	8′-6″	8′-10″
45°	8′-2″	8′-4″	8′- 8″

c) Bumper strips separating stalls located opposite each other lead to proper usage of stall depth and make the misuse of parking stalls as driving area impossible. However, they represent a considerable initial and continuing expenditure and render snow removal more difficult. It has also been claimed that they cause accidents to pedestrians who stumble over them. A substitute device consists of metal or concrete posts about three feet high placed along the dividing line between opposite rows of stalls. Some advantages of this arrangement are relative safety and lower cost of upkeep. A disadvantage is that in an empty parking lot the concrete posts create the illusion of a cemetery; they also complicate the snow removal problem. If every third or fourth post is replaced by a tree and the remaining ones replaced by suitable carrying devices for plants, an aesthetic asset can be created.

d) Double lines between adjoining parking stalls assist in parking maneuvers. Driving lanes should be of ample width. The following minimum measurements for the width of a parking unit, consisting of one lane and the adjoining two stalls, are recommended: for 90° parking, 62′; for 60° parking, 54′; for 45° parking, 48′.

e) Walkways for pedestrians will result in greater safety

for shoppers and will eliminate slowing down of vehicles, but will reduce the number of parking spaces in any given area.

f) Parking aisles should be directed at right angles to the shopping center building group. This reduces walking distances and gives clear direction to shoppers on their way to the stores.

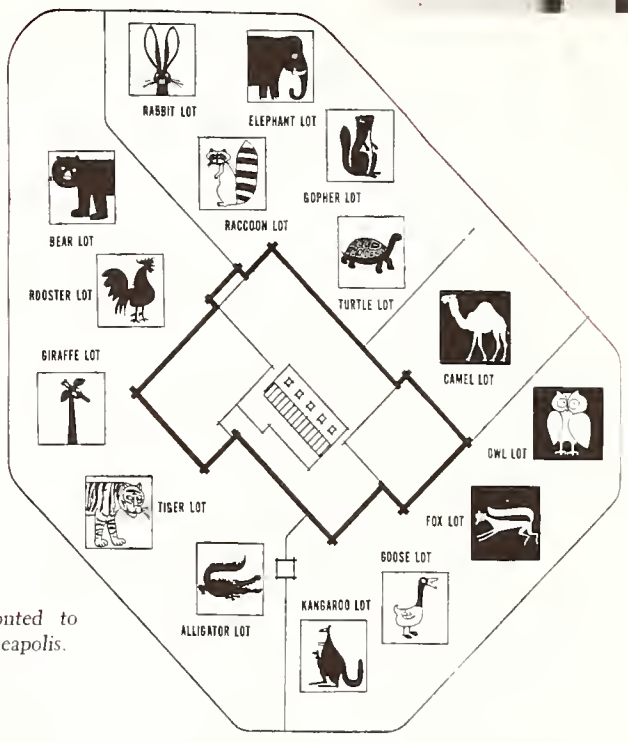
g) Surfacing of good quality will speed parking operations and reduce upkeep and maintenance costs.

h) Well designed and executed markings and signs will prevent confusion, lessen the likelihood of accidents and increase parking capacity. Sole reliance on signs painted on the pavement is not advisable because of their generally poor visibility and their total invisibility in case of snowfall. Lanes must be clearly numbered with signs visible to the motorist when driving into the lot as well as when returning from shopping.

i) Large parking areas should be divided by walkways and/or landscaping into smaller lots containing not more than 800 cars. These lots should be identified by signs legible from all directions. For identification, letters and numbers are most often used. However, they prove difficult to remember. Pictorial signs such as animals or flowers may be preferable (see Part II, Chapter 10).

j) Proper illumination (at least one-half to one and one-half foot candles, or an average of one maintained) is essential for safety and will speed parking operations during peak business hours and night openings (see Part II, Chapter 9).

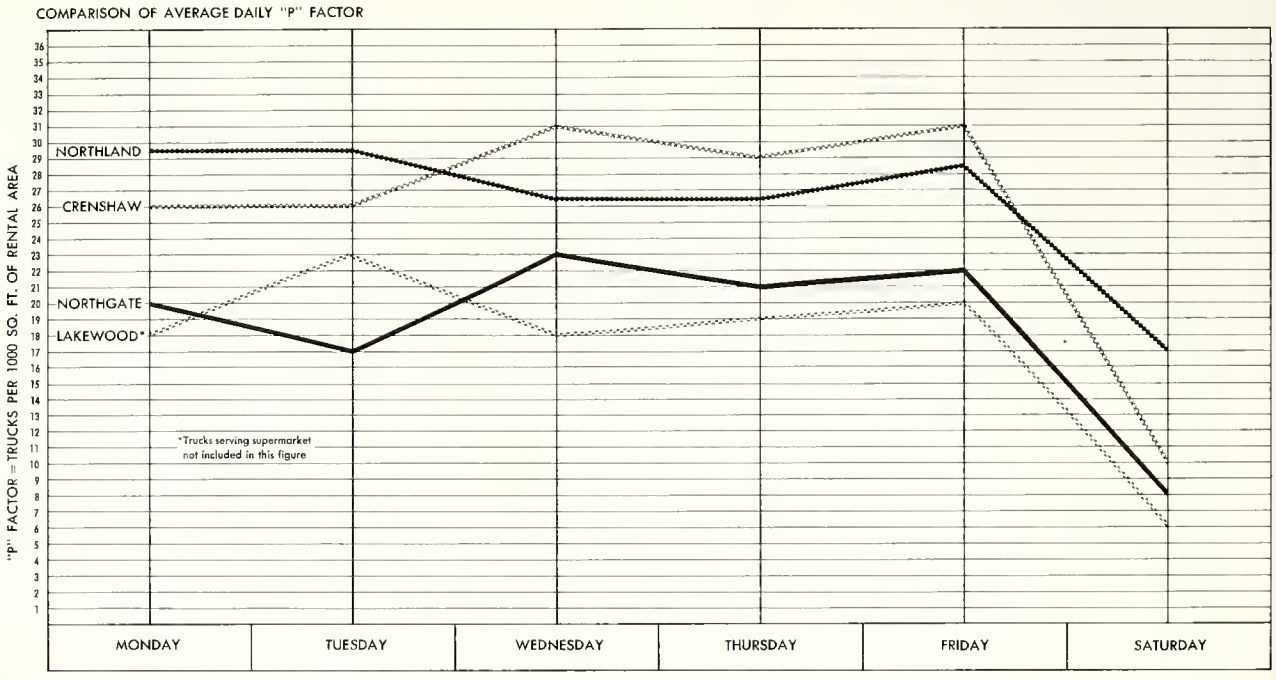
Parking lots in Southdale are marked with signs carrying animal symbols.
Photograph: Anthony Lane



Copies of this map are distributed to shoppers at Southdale, near Minneapolis.

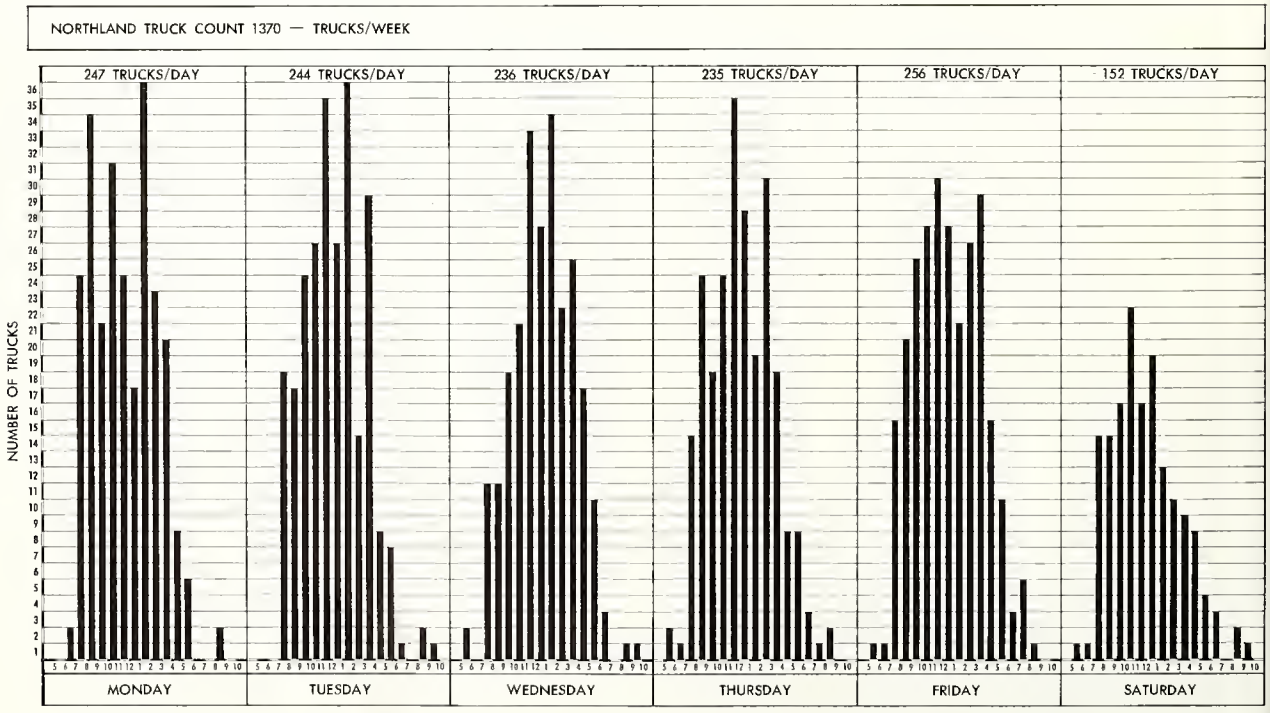
Parking in Southdale takes place on upper and lower levels which slope from circulatory driveway to meet level of lower or upper merchandising facilities.
Architects: Victor Gruen Associates
Photograph: Courtesy Minneapolis Sunday Tribune

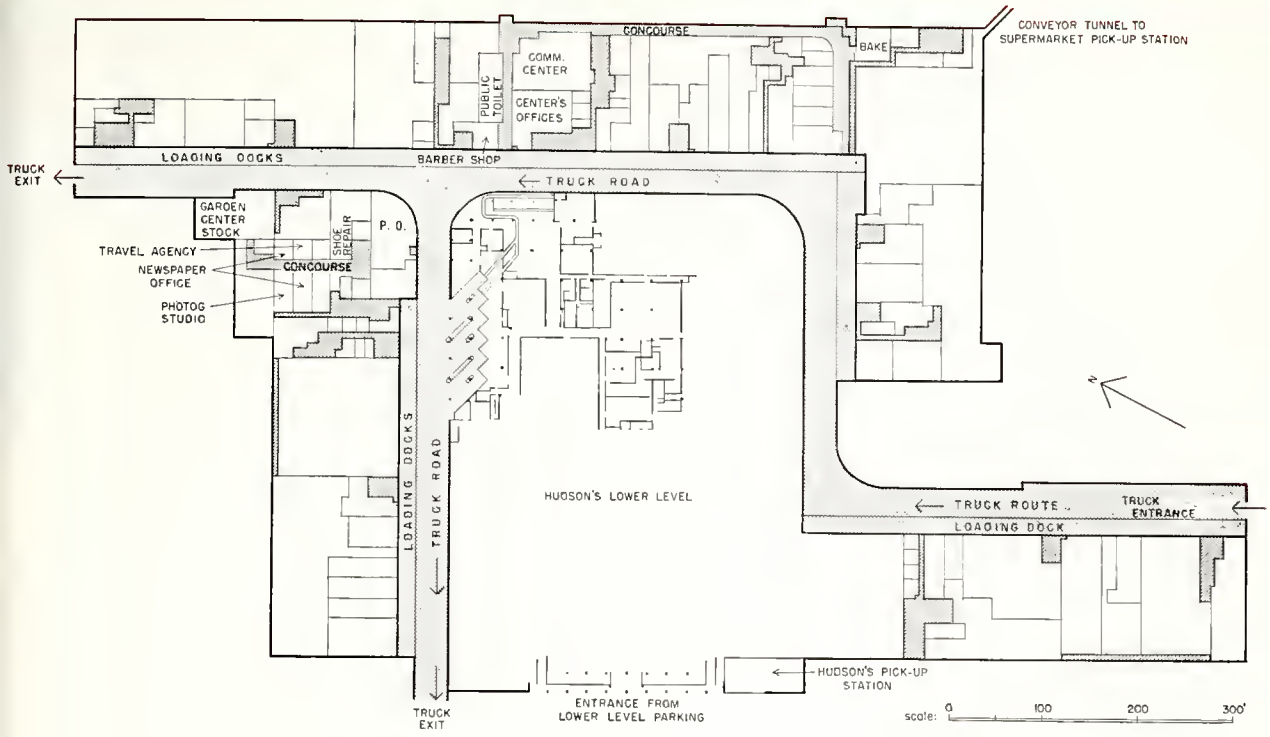
Parking on various parking decks is projected for site of limited size. Fifth Avenue South Center, Washington, D.C.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers



Comparison of truck traffic, based on actual observation, for four shopping centers: Northland, Detroit; Broadway-Crenshaw, Los Angeles; Northgate, Seattle; Lakewood, Los Angeles.

Tabulation of traffic count during one week at Northland Center, Detroit. Architects: Victor Gruen Associates





Layout of truck road and loading docks at Northland Center, Detroit. Architects: Victor Gruen Associates

5) Separation of Service Vehicle from Customer Car Traffic. For service vehicles (trucks, trailers, garbage- and trash-collecting vehicles, etc.) separate roads, branching off from the general road system at points removed as far as possible from the shopping area, should be provided. Ideally — and this can be accomplished in large regional shopping centers — separate entrances and exits to the public road system should be planned. Where this is not feasible the branching off should take place from the perimeter circulatory road, or, in smaller centers, from general entrance and exit roads before such roads take on the characteristics of parking lanes. Where underground or upper level service roads are provided, the possibility of arranging for one-way service roads often exists. Even where service courts or alleys are arranged at surface level, special one-way service roads can be provided. Under no circumstances should service vehicles cross roads that directly serve parking operations. Service road entrances must be properly marked in order to prevent the entrance of other vehicles. Where underground service roads enter buildings, a height of 14 feet is recommended. This is sufficient for trailers.

In designing service roads and loading facilities, the following information quoted from a truck traffic survey undertaken by Victor Gruen Associates and Larry Smith & Company will be found helpful.

A. *Number of Trucks To Be Expected Per Day*
Regardless of geographical location, shopping centers without food markets will have approximately 75% of the maximum daily volume of centers with food markets. "P" factor — trucks per 1,000 sq. ft. of rental area, is an average of 0.23 for centers without markets. (For centers with markets, 0.29.)*

B. *Number of Trucks To Be Accommodated at One Time*
An accumulation of 7% and 15% of the daily volume can be considered as the minimum and maximum requirements, with a figure of 12% desirable for economical and efficient operation.

C. *Physical Requirements of Truck Delivery Spaces*
Generally speaking, the ideal layout of truck delivery spaces should be characterized by the following considerations:

1. Ease of access for delivery trucks from public roadways; minimum interference with customer automobile and pedestrian traffic.
2. Delivery spaces located out of sight of normal customer areas.
3. Delivery space planned so that trucks can maneuver into docks, or berths, with a minimum of lost motion, in the shortest possible time and with the greatest degree of safety both for other vehicles and fixed building elements, such as columns, platforms, walls, etc.
4. Docks designed to provide the greatest ease in the transfer of goods from truck to receiving platform.
5. Delivery docks located where they can provide the most direct access to service and stock areas of stores being served.

*This term has been used in the Truck Traffic Survey to denote the trucks and other service vehicles frequenting a shopping center per day in relation to 1,000 square feet of rental area.

A special bus road is provided at Northland Center. Two bus station shelters have been constructed and are connected by covered walks with shopping core of structures. A pickup station for the department store, J. L. Hudson Company, is visible below the bus road.
Architects: Victor Gruen Associates. Photograph: Photograph House

D. *Critical Vehicle Size*

In the layout of delivery spaces, it is first of all necessary to determine the size of the largest truck to be accommodated in order to provide sufficient room for the driver to maneuver his vehicle into the truck area and back into the unloading position. Since there are innumerable types and sizes in trucks and truck and trailer combinations, and since maximum legal sizes vary from state to state, certain assumptions must be made as to the size to be used for design purposes.

There has been a relatively greater increase in the number of commercial vehicles than in passenger automobiles in recent years; a similar greater increase in the number of combination units; and a constant increase in the pay load and gross weight of the combination vehicles.

According to a statement by Thomas H. MacDonald, Commissioner of Public Roads, to the Senate Committee on Interstate and Foreign Commerce quoted in "Zoning For Truck Loading Facilities," it would appear, in view of such a trend, that a shopping center of major size may be at a distinct disadvantage if it does not contain facilities for handling the largest size vehicles permitted on the highways. The maximum size of the vehicles that will enter the truck loading areas will be largely determined by the facilities offered by the shopping center; in many cases, the largest size unit will be the most economical from the shipper's standpoint.

Tests conducted by the California State Division of Highways indicate that for roadway clearances the critical vehicle is the large tractor-semi-trailer combination, of approximately 50-foot over-all length. Truck and trailer units and tractor, semi-trailer, trailer units of the full 60-foot California legal length are able to negotiate any roadway which can accommodate the large tractor-semi-trailer unit. It would be unlikely, however, for a truck and trailer unit of maximum size to make deliveries to a shopping center since these units are almost exclusively used for long distance hauls, but it is not at all inconceivable that tractor-semi-trailer units approaching the legal limit would enter a shopping center delivery area. For the purposes of design, therefore, the logical assumption is to provide minimum space requirements adequate to handle this vehicle. On this basis enough space would be provided for the occasional handling of these large units while the greater dimensions thus provided become a factor of safety contributing to the ease of operation and efficiency of maneuvering smaller vehicles. The following information on maneuvering spaces is therefore based on this tractor-semi-trailer unit of approximately 50-foot length.

E. *Maneuvering Space Requirements*

On the basis of tests conducted by the California State Division of Highways a recommendation was made that 60 feet be considered a minimum practical outside radius.

Although this 60-foot radius is recommended where possible, in view of the relatively small number of large vehicles which may be expected a 50-foot outside radius should prove adequate in most cases. The inside turn clearances, however, are often critical since the necessary roadway width increases with the decrease of the outside radius.

An important consideration in the layout of truck docks — particularly from the standpoint of the truck driver — has to do with the side from which the driver is required to make his back-in run. In maneuvering a large tractor-semi-trailer unit, if the driver is forced to turn his cab so that his vision backward is blocked by the trailer, the accuracy of his aim toward the dock is dependent entirely on his skill and experience and at best may require several trials with resulting delay and danger of hitting adjacent trucks, columns, and other obstructions. In designing for the average driver it therefore becomes necessary to plan the maneuvering space in such a way that the backing-up operation swings the trailer clear of the driver's line of vision. It has been observed that even an average operator can maintain minimum clearances where it is possible for him to sight back along one side of his vehicle.

F. *Dock Design*

While many trucks and semi-trailers are equipped to load and unload from the side of the vehicle, observation of many typical dock facilities indicates that the preferred and apparently most practical method is to unload from the end of the unit. The ideal dock, in most cases, would consist of a platform located at the level of the truck floor, against which the vehicle may back.

Since there are many variations in the height of truck beds and differences in height due to loaded as against unloaded condition, this ideal is not easily attainable.

There are various types of leveling device which are used in compensating for varying heights. Permanent or portable ramps under the rear wheels of the truck will usually adjust the height adequately, while a steel plate bridge between the truck and the dock platform facilitates the use of trucks handling small goods.

With very few exceptions, 8 feet is the maximum allowable vehicle width throughout the country and it may be assumed that the majority of units will have this dimension. The minimum width of dock space should not be smaller than 10 feet with a preferred dimension of 12 feet since the stall width is directly related to the amount of room necessary for pulling out from a dock space.

The provision of overhead protection for the unloading operation is an almost mandatory requirement for the type of merchandise that is handled at a shopping center. The generally accepted vertical clearance is 14 feet.

The depth of the dock must be sufficient to provide space to stack the material that is being unloaded from the truck and besides, leave access aisles for handling. It is recommended that as a general rule the dock area be at least twice the total body floor area of the largest number of trucks that can be docked at one time. This is a logical conclusion when it is realized that freight of average density usually is piled between 5 and 6 feet high in the truck, is transported to and from the truck on two-wheeled hand trucks handling a height of stack from 3 to 4 feet, and seldom is tiered on the loading dock; hence, allowing for aisles in which the hand truck can operate, the required dock area is at least twice the floor area of the vehicles at the dock.

Even with this size ratio it would be necessary to transport the freight promptly from the dock in order to make continuous use of the truck berths.

On this basis a dock 120 feet long serving 10 trucks with an average truck bed length of 16 feet would have a dock depth of

$$\frac{10 \times 16' \times 8' \times 2}{120} = 21'.$$

On the same basis a dock serving a 35-foot long semi-trailer parked parallel to it would require a depth of 16 feet $\frac{(35' \times 8' \times 2)}{35} = 16'$

While such generous dimensions might be good practice in a freight handling depot or warehouse, it is doubtful whether the dock area per truck thus calculated would be necessary in shopping center design for all stores since a great many deliveries would not involve the complete unloading of the vehicle. Therefore, in estimating the dock size in a shopping center the area required for specialty stores may be assumed to be equal to the total floor area of the trucks being served. Increased areas, approaching the doubled amount mentioned above, should be provided at docks serving food markets, department stores, or other major delivery users.

G. *Location of Truck Delivery Areas in the Shopping Center Plan*

On the basis of information listed under A to E the design of service roads and loading and unloading facilities can be undertaken. The question of where such facilities should be located has been discussed in Part II, Chapter 3. An additional possibility is being considered in a number of projects still on the drafting boards. In these projects provisions are being considered for one central service area for all stores where all loading, unloading and temporary storing are accomplished. From this central service area merchandise is moved to individual stores by a system of conveyor belts or, in some cases, by small electric forklift trucks. These arrangements promise to result in reductions of unproductive spaces and capital investment, provided they are deemed to be practical in operation by the tenants of the projects.

6) **Provisions for Separated Movement and Loading Areas for Public Transportation Vehicles.** Public transportation, as stated previously, if given proper opportunities and facilities can make important contributions to the shopping center business volume. In most cases it is accomplished by buses and, to a minor degree, by taxicabs. To make public transportation effective buses and taxis must be brought, if possible on separate roads, to loading and unloading areas immediately adjoining the shopping center buildings or the pedestrian area. Bus stations located on public highways make overlong walks through buffer areas and parking lots necessary. Bus stops should be provided with shelters and the means for posting schedules. Storage space for public transportation vehicles should be arranged on or near the site so that the transportation company can make available extra transportation for peak periods, especially for the exiting traffic at closing hours.

That good provision for public transportation creates strong usage for it is shown by statistics assembled for the Northland and Eastland Centers where it is estimated that passengers arriving by public transportation (chiefly by bus) represent approximately 7% of the total number of shoppers per day. It is interesting to note that while both centers provide taxi stands as a matter of public convenience, the number of customers arriving and leaving by taxi is almost negligible.

There are cases where other means of public transportation can be utilized. The Westchester Terminal Plaza plans to take advantage of commuter and express train traffic as the railroad station will be an integral part of the shopping center. This project would also include a Greyhound Bus Terminal. The design for the projected "Staten Island Downtown" development makes provisions for a subway terminal in the event the New York Transit Authority should extend its network to Staten Island.

Bus road and bus terminal structure at Eastland Shopping Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Alexandre Georges

PART II-CHAPTER 7

Planning for Merchandising

The expression "merchandising a shopping center" is somewhat misleading in that the term "merchandising" by its accepted definition relates to the actual selling of merchandise. However, as a part of the language evolved by shopping center planners it is used to denote a phase of planning — the selection and location of tenant types or, if possible, specific tenants on the renting plan. The importance of this phase of planning cannot be overstressed, since the relationship of income to expense is a primary determinant of whether or not a real estate investment is sound and profitable. This, in turn, is dependent on effective merchandising planning.

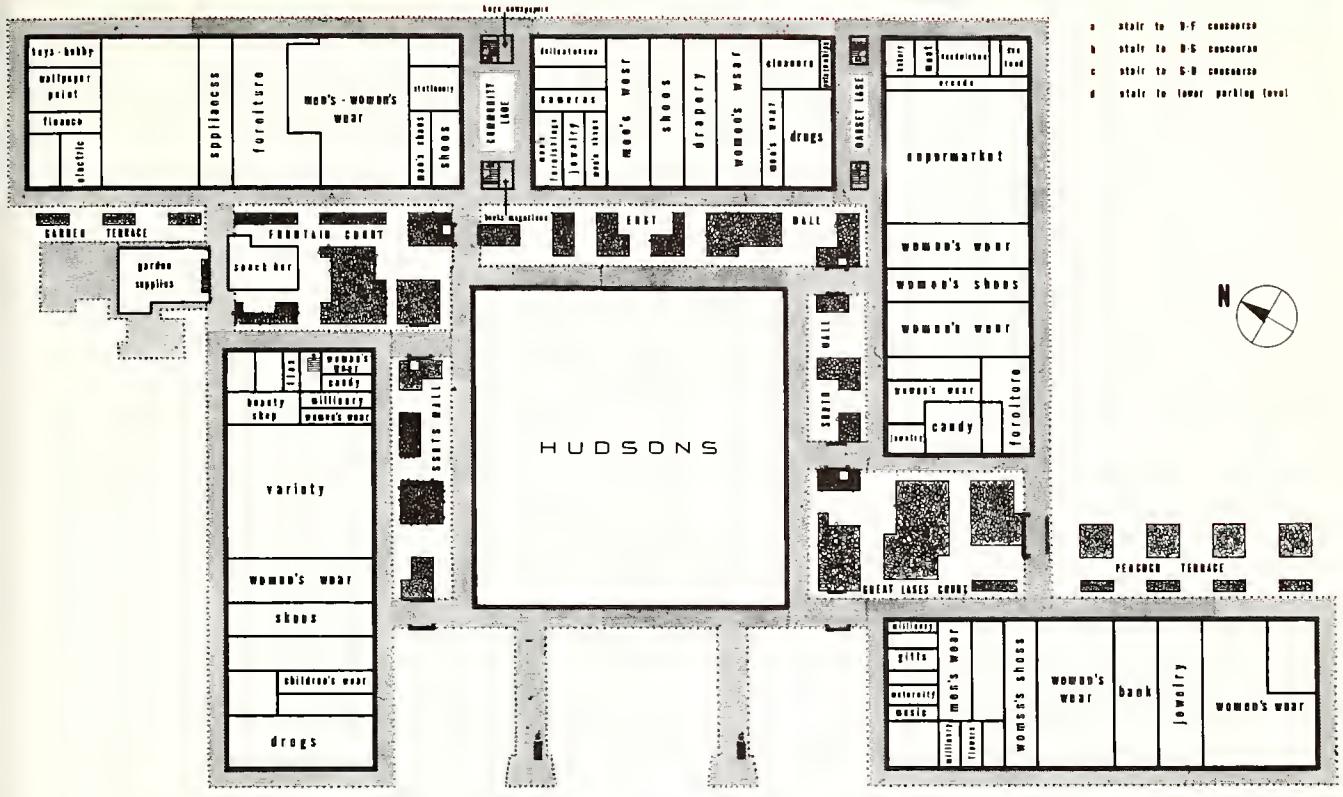
Retail patterns, as established downtown, and in well established suburban locations, give the planner a frame of reference with respect to locational characteristics, space requirements and productivity potential of each type of tenant. It is this knowledge, comprising the methodology of merchandising planning, that is applied to the shopping center situation.

Merchandising planning attempts to create a situation in which each member of the retail entity — the owner, the tenant, and the shopper — functions in a manner that benefits each of the others. To accomplish this the center must have ample and convenient shopping opportunities for the customer, as well as locations that provide each tenant with access to the maximum amount of shoppers' foot traffic; this combination results in each tenant's willingness to pay large enough guaranteed rents to permit financing and construction of the project. The percentage rent structure should be such as to provide further profit when stabilized operating levels have been reached. The investment objectives of the owner can best be realized through a balanced tenancy, allowing each tenant to perform on an optimum basis.

In this discussion, we will show how the relationship of locational requirements to rent paying ability and productivity potential is considered for each type of tenant in the merchandising plan. For purposes of discussion we have attempted to isolate these interrelated factors and will take them up one at a time.

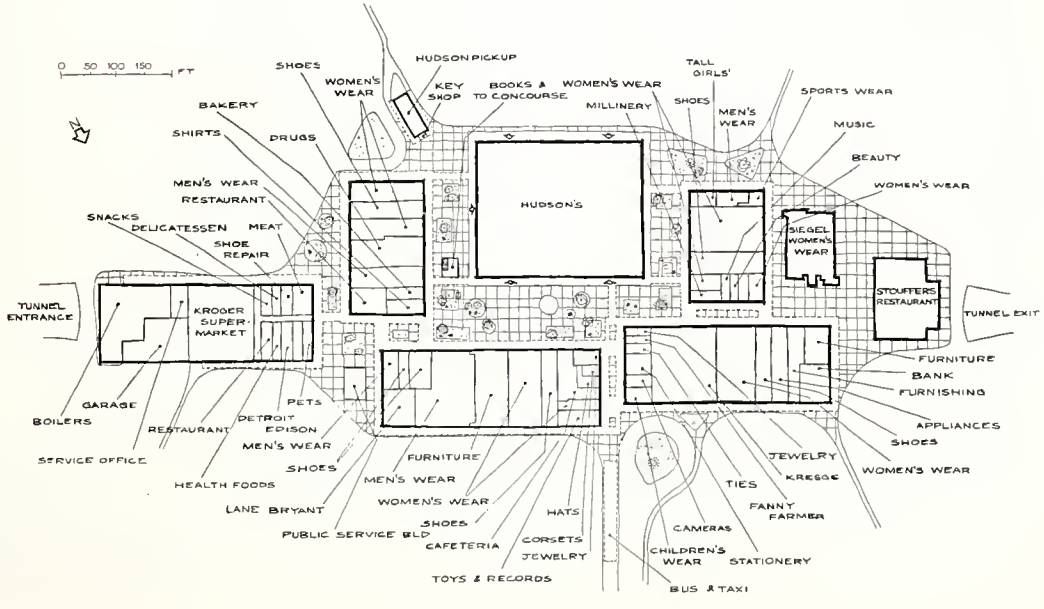
1) Physical Aspects of the Plan. Merchandising planning begins after the economic analysis of the site has determined the size of the project and the architectural and engineering analysis of the site has determined the basic planning concept. Essentially, "merchandising the plan" consists of determining the size, location and type of each store to be placed in the shopping center — with respect to both type and quality of merchandise handled. Another significant phase of the initial merchandising planning is the determination of the character of the shopping center as influenced by the choice of the major tenant, the department store.

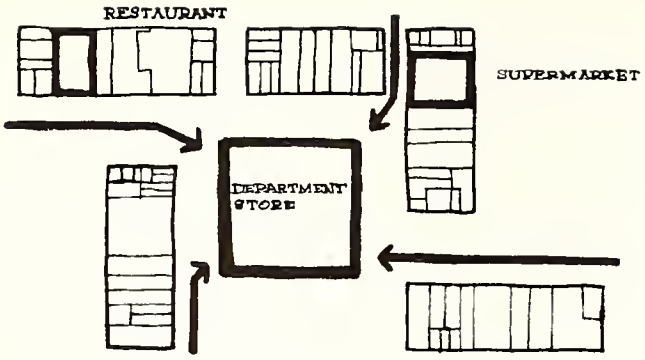
The primary objective of the merchandising planner is to select stores and to arrange them in such a manner that the greatest possible number of customers are attracted to the shopping center and funneled through it, thereby creating the maximum amount of pedestrian traffic and inter-store shopping opportunities. The basic principle underlying this process is the enhancement of the customer's



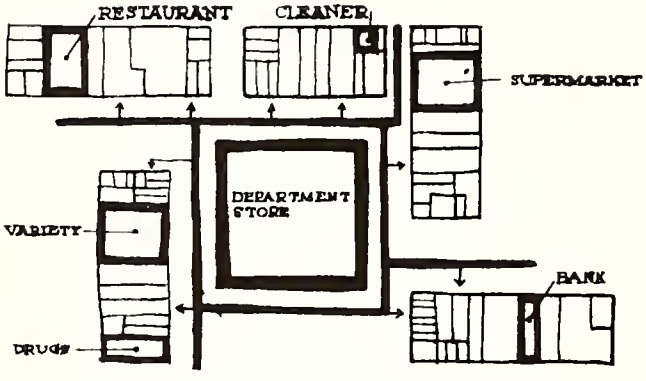
Merchandising plan for Northland Center, Detroit.
Architects: Victor Gruen Associates

Merchandising plan for Eastland Center, Detroit.
Architects: Victor Gruen Associates





Shoppers are attracted to the scene by primary customer attractors.



Secondary traffic attractors.

satisfaction in terms of an adequate selection of merchandise offered with greatest convenience to the customer, and with the highest possible standard of service by the merchants.

Customers are attracted by the over-all presentation of merchandise in the center but especially by primary customer attractors. By placing primary and secondary customer attractors in locations where they function as magnets, customers are pulled through the center, from one magnet to the other, past the doors of the tenants who fall into the category of traffic users. These latter cannot in themselves attract a sufficient number of customers to survive, and therefore are dependent upon the foot traffic generated by the primary and secondary traffic attractors and in certain cases are prepared to pay premium rents for locations in which they enjoy such benefits.

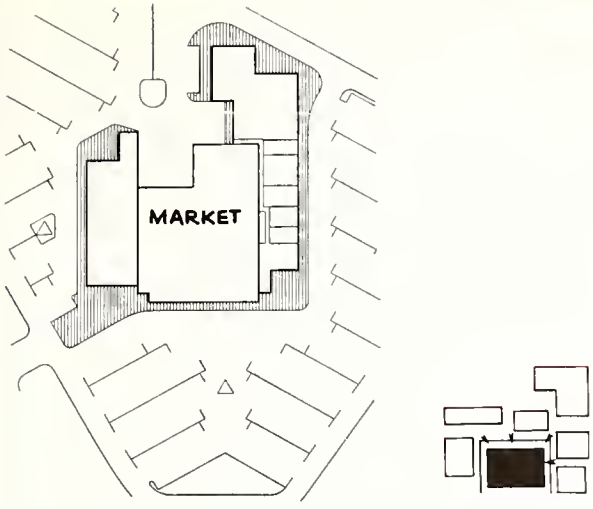
The most important primary traffic attractor — a tenant capable of attracting customers to the center — is, in a regional center, obviously the department store. The junior department store, the specialty and large fashion store, the supermarket and the large quality restaurant also serve as primary traffic attractors each to varying degrees depending upon factors which differ from center to center. They are also referred to as anchor tenants.

The function of the secondary traffic attractor — that of pulling customer traffic through the center — is performed by the tenants in the primary attractor category as well as by banks, post offices, clusters of apparel stores, groups of stores selling services, such as barber, beautician, shoe repairman, dry cleaner and other related activities, and possibly variety stores. The characteristics of these various store types will vary from project to project, and the importance of any one store in generating traffic will also depend upon the location and character of the shopping center itself.

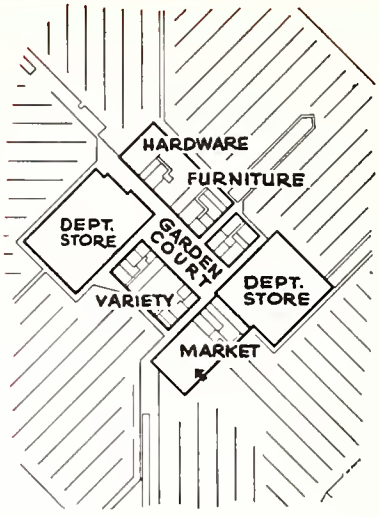
The remainder of the tenants fall into the category of traffic users and, as such, require prime space with maximum pedestrian traffic. This category is largely made up of the so-called small tenants who, while they are not traffic generators, serve a highly useful function since they contribute to the completeness, or one-stop shopping characteristic, of the regional center. They add color and enhance the atmosphere and character of the center. Because these characteristics have, in general, been confirmed by experience, they are valid for planning purposes. However, it should be pointed out that any tenant of a shopping center may in a single instance be a primary-traffic-generator in that his particular store may be the primary object of a shopping trip.

The primary traffic generator can function best for the shopping center when located in accordance with the "pull" principle. The *single-pull plan* is used when one anchor tenant is contemplated. The *double-pull plan* is desirable when two anchor tenants are anticipated, and functions well where the mall type of building arrangement is used. The *triple-pull plan* can be used for a variety of more complex building arrangements when three anchor tenants are to be located in the project. The use of this type of plan could be particularly beneficial in instances where the project is to be constructed in two or more stages; the first stage could be based on the single-pull concept which could evolve into the triple-pull plan as the project is completed.

After the major stores are placed in the location where they achieve their own objectives and where they exert the greatest pulling power, an analysis of the plan will very likely indicate those areas that must be merchandised productively by tenants capable of generating secondary or intra-center pedestrian traffic. The reason for this might be that the areas are not directly related to the major source of customer attraction, or that the location in relation to that source is disadvantageous for other reasons.

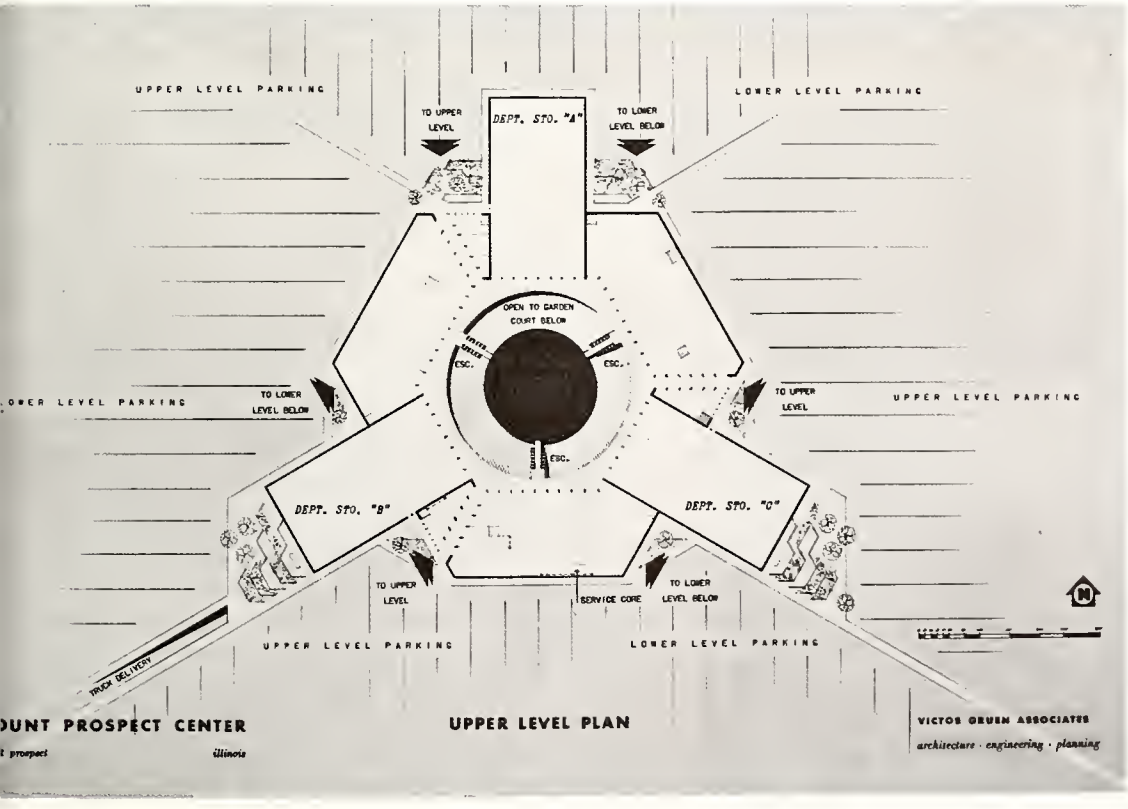


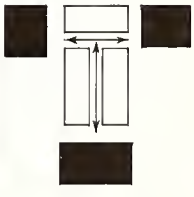
The single-pull plan. The supermarket dominates neighborhood center. Black Horse Pike, Audubon, New Jersey.
Architects: Victor Gruen Associates

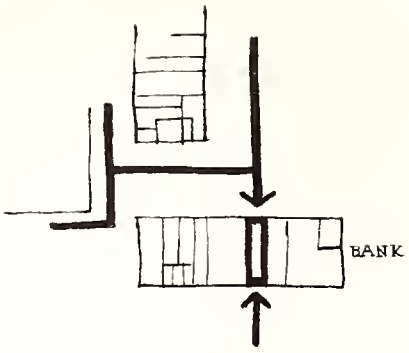


The double-pull plan. Two department stores are the anchor tenants at Southdale Shopping Center near Minneapolis.
Architects: Victor Gruen Associates
Architect for Donaldson Store: John Graham & Co.

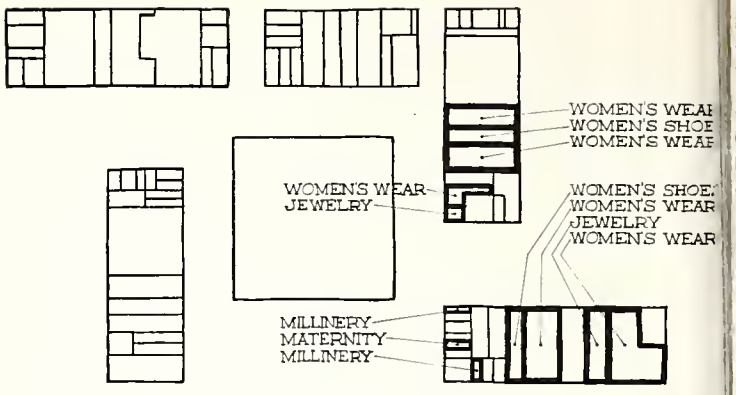
The triple-pull plan. Three department stores are the anchor tenants at Randhurst Center, Mt. Prospect, Illinois (in the planning stage).
Architects: Victor Gruen Associates





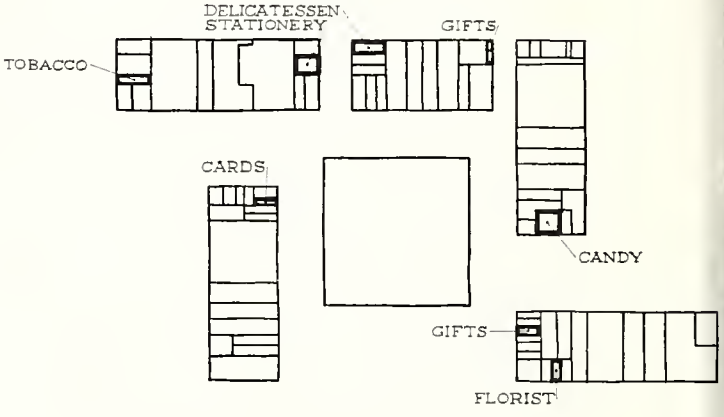


Placement of secondary traffic generators.



Placement of secondary traffic generators.

Suitable place becomes available for other, often small, tenants.



However, placing secondary-traffic-generators in such locations is likely to locate them in the main stream of pedestrian traffic, which is not necessarily directly at the main magnet. Customers will be drawn to them regardless of their location within the center and their function as a secondary magnet serves to increase the pedestrian traffic within the center. Certain secondary-traffic-generators, requiring close relationship to parking, can attract shoppers to the outer extremities of the building group — thereby creating profitable space that would otherwise be used less advantageously. This concept of merchandising planning is compatible with the primary financial objective of obtaining an optimum average guaranteed rent for the center. By distributing traffic throughout the project, this type of tenant creates more prime space in the center than would be the case if all such tenants required space in close proximity to an anchor tenant. In this fashion suitable space becomes available for other, often small, tenants who are capable of paying higher rents for the privilege of enjoying pedestrian traffic which they could not generate themselves.

The building groups used to illustrate the single-pull, double-pull, and triple-pull principle are used again here to show the cross-pull effect achieved by locating the secondary traffic attractors in the manner described.

After the primary and secondary traffic attractors have been located, the location of other stores is determined to some degree by considering the principle of compartmentalization: the grouping of stores featuring related or like merchandise, particularly with respect to type, quality and price. Experience has shown that this general arrangement tends to increase the productivity of each member of such a group. Furthermore, inter-store shopping is encouraged by the grouping of small specialized food stores

around the supermarket. Similarly, it is considered advantageous to group stores of comparable quality and price, handling women's apparel and shoes, children's clothing and family apparel and shoes. Stores handling housewares constitute another such logical grouping and add, as do the other related groups, to the customer's greater shopping convenience. The principle of compartmentalization should not, however, be followed exclusively, as introduction of non-related store types in any grouping may add to customer interest and capitalize on the value of developed pedestrian traffic.

When the plan is merchandised to the extent of locating the primary and secondary traffic attractors and the related store groups, locations are indicated for each specific tenant on the basis of his need for exposure to pedestrian traffic and his ability to pay the indicated value of particular locations within the project.

In this final stage of initial merchandising planning, care should be taken to create the maximum number of opportunities for impulse buying by the sprinkling of small attractive shops such as candy stores, pastry shops, gift shops, tobacco stores, card shops, and the like throughout the center.

The location of service stores is not as critical with respect to customer traffic as some of the other tenant types. Once they have developed a clientele, they generally have enough traffic-generating ability to operate successfully regardless of their location within a center. Because they constitute, in themselves, the object of a more or less planned shopping trip, the customer will seek them out in relatively isolated locations. For this reason they often occupy basement concourse space that is difficult to merchandise productively with most other tenants.

a) Channeling Traffic. A primary objective of the merchandising plan, that of creating and generating the maximum amount of pedestrian traffic through the center, can be furthered by various other devices.

Traffic can be channeled by locating the "secondary-traffic-attractors" in such a manner that a shopper is required to cross the mall or turn the next corner in order to complete her shopping tour; by architectural treatment such as off-set building locations, appropriately placed landscaped areas (a few steps up or down on the malls or walkways), directional signs strategically located to proclaim the existence of an item of interest such as some outdoor promotional activity or sales event a "few feet ahead" or "just around the corner."

b) Expansion. Where a center is planned for expansion the initial merchandising plan should allow for the enlargement of tenant spaces within the scope of the retail potential of each tenant and of the shopping center as an entity. Space reserved for this purpose may be in the form of mezzanines or basement area. The potential for vertical and/or horizontal expansion, besides constituting a physical problem, must also be considered in the initial merchandising plan and implemented through individual lease agreements. Locating short lease tenants, with low fixturing costs, adjacent to tenants with possible expansion needs may be a useful concept.

2) Financial Ramifications of the Plan. In order to bring about a satisfactory real estate investment the tenants must pay a minimum average guaranteed rent sufficient to permit efficient financing of the center. When satisfactory operating levels have been reached, the percentage rent should, in addition, provide a profit to the owner consistent with the value of the location and the effectiveness of the planning. Since the tenants who function as traffic attractors characteristically pay lower rents, this must be offset by the ability of the smaller tenants, who are traffic users, to pay higher rents, if a satisfactory rent level for the center is to be achieved.

Another factor that influences the selection of tenants is the desire to obtain national chain tenants whose credit ratings satisfy the requirements of financing institutions. Extremely high credit rating requirements obviously reduce the number of qualified tenants available. To offer facilities consistent with local shopping patterns, strong local and regional tenants who have demonstrated ability to achieve customer acceptance should be obtained for the balance of the space.

Because circumstances vary so much from center to center it is difficult to generalize, but experience has shown that securing a combination of national and local tenants may raise the average guaranteed rent level by as much as 25%, as well as develop high productivity of sales and consequent satisfactory percentage rents.

The following table shows the normal range of guaranteed and percentage rents paid by typical regional shopping center tenants and the amount and kind of space normally occupied by each. See pages 138-9.

3) Factors That Affect Accomplishment of the Ideal Merchandising Plan. The extent to which the developer will be able to achieve the objectives discussed will be influenced, although circumstances vary from center to center, by several additional factors:

a) The Planning Concept. The quality of the general planning and design concept — the degree of skill with which the relationship of planning elements is handled —will be reflected in a more or less ready acceptance, by all tenants, of assigned store locations and store sizes, as well as other leasing terms.

b) The Negotiating Position of the Shopping Center. If the center is in a strong bargaining position, it is likely that the owner will be able to negotiate terms and locations favorable to it. On the other hand, if the position of the center is weakened because competing facilities already exist, or for other reasons, this will be reflected in the low number of tenants willing to join the center and in the terms they will accept.

c) Handling the Leasing. The extent to which the leased shopping center deviates from the initial merchandising plan can be attributed, in some instances, to the quality of management's leasing supervision. If the leasing is undertaken by a representative of management or by a broker under the direction of the owner, the terms negotiated with tenants are much more likely to reflect management decisions and interests than if handled by brokerage offices operating without such direction. The interests of the latter are primarily related to leasing the space as quickly as possible, and rental opportunities are appraised through the eyes of tenants with whom the broker may have or may plan to have relationships.

In this connection it should be mentioned that the skill of the negotiator is an important factor. Another is the creation of means to facilitate and coordinate management decisions concerning leasing activities — by establishing a leasing committee, for example — so that

Schematic rent schedule for hypothetical regional shopping center.

RENT SCHEDULE FOR HYPOTHETICAL REGIONAL SHOPPING CENTER (PART I)

	Rentable Area (Sq. Ft.)	Guaranteed Rent Per Sq. Ft.	Guaranteed Rent Total	Estimated Stabilized Sales Per Sq. Ft.	Estimated Stabilized Sales Total	Total Rent Rate (%)	Total Rent Total
Food	**32,000**		**$ 51,875**		**$3,927,500**		**$ 80,150**
Candy & Nuts	500	$4.00	2,000	$100	50,000	10%	5,000
Delicatessen	1,500	3.25	4,875	85	127,500	6	7,650
Supermarket	30,000	1.50	45,000	125	3,750,000	2% to Min. 1½% Over	67,500
Department Store	**160,000**	**1.25**	**200,000**	**60**	**9,600,000**	**2½%**	**240,000**
Junior Department Store (of the variety store type)	**60,000**	**1.25**	**75,000**	**50**	**3,000,000**	**4% to Min. 3% Over**	**108,750**
Apparel	**115,000**		**276,900**		**7,261,500**		**412,980**
Women's Specialty	10,000	2.00	20,000	65	650,000	4½%	29,250
Women's Wear	8,000	2.25	18,000	65	520,000	4½	23,400
" "	3,000	2.50	7,500	60	180,000	6	10,800
" "	2,500	2.50	6,250	60	150,000	6	9,000
" "	3,000	2.50	7,500	60	180,000	6	10,800
Men's Quality Wear	2,000	2.50	5,000	60	120,000	7	8,400
Men's Wear	14,000	2.25	31,500	65	910,000	5	45,500
" "	10,000	2.25	22,500	65	650,000	5	32,500
" "	8,000	2.25	18,000	65	520,000	5	26,000
Apparel Store	4,000	2.50	10,000	55	220,000	6	13,200
Children's Wear	3,500	2.50	8,750	55	192,500	6	11,550
Women's Shoes	8,500	2.50	21,250	65	552,500	6	33,150
" "	10,000	2.50	25,000	65	650,000	6	39,000
" "	8,000	2.50	20,000	65	520,000	6	31,200
Family Shoes	4,500	2.50	11,250	65	292,500	6	17,550
Men's & Boy's Shoes	3,000	2.50	7,500	60	180,000	7	12,600
Children's Shoes	3,000	2.50	7,500	60	180,000	7	12,600
Millinery	1,200	3.00	3,600	50	60,000	10	6,000
Maternity	800	3.25	2,600	55	44,000	7	3,080
Lingerie	800	3.25	2,600	70	56,000	8	4,480
Hosiery	800	3.25	2,600	70	56,000	8	4,480
Teen Shop	3,000	2.50	7,500	60	180,000	7	12,600
Bridal Shop	1,200	3.25	3,900	55	66,000	8	5,280
Women's Accessories	2,200	3.00	6,600	60	132,000	8	10,560
Furniture	**27,000**		**56,000**		**1,255,000**		**59,775**
Furniture	23,000	2.00	46,000	45	1,035,000	4½	46,575
China & Glassware	4,000	2.50	10,000	55	220,000	6	13,200
Hardware	**9,000**	**1.75**	**15,750**	**45**	**405,000**	**5**	**20,250**

negotiations can be consummated as expeditiously as possible.

d) The Availability of High Quality Tenants. While this factor overlaps or coincides with the relative strength or weakness of the center, it is also affected by general economic conditions, trends within any given retail category, or internal policies or problems of particular tenants.

e) Other Management Factors. Another factor that might influence the ability of the center to secure competent and experienced tenants could be the strength and competence of the management group itself. This would be reflected in the manner in which the project has been carried forward into the leasing period.

Factors such as methods of promotion during the early development period, timing of various phases of the project, and demonstrated ability in selecting and signing major tenants could affect the degree of confidence in management to carry the project through.

RENT SCHEDULE FOR HYPOTHETICAL REGIONAL SHOPPING CENTER (PART II)

	Rentable Area (Sq. Ft.)	Guaranteed Rent Per Sq. Ft.	Guaranteed Rent Total	Estimated Stabilized Sales Per Sq. Ft.	Estimated Stabilized Sales Total	Total Rent Rate (%)	Total Rent Total
Drugs (Chain)	12,000	$1.90	$ 22,800	$ 65	$ 780,000	3%	$ 23,400
Eating & Drinking	25,000		62,250		1,625,000		100,620
Bakery & Cofeteria	9,000	2.25	20,250	65	585,000	6	35,100
Fountoin	800	3.00	2,400	65	52,000	7	3,640
Fountain (lunch)	4,000	2.25	9,000	65	260,000	7	18,200
Restourant	6,000	2.50	15,000	65	390,000	6	23,400
Cafe	5,200	3.00	15,600	65	338,000	6	20,280
Other Retail Stores	43,000		123,675		2,438,250		164,955
Costume Jewelry & Handbags	2,500	3.50	8,750	70	175,000	7	12,250
Jewelry	3,000	3.50	10,500	75	225,000	6	13,500
Leather Goods	1,500	3.00	4,500	45	67,500	8	5,400
Cosmetics	700	3.50	2,450	70	49,000	7	3,430
Fabrics	8,000	2.25	18,000	50	400,000	5	20,000
Sporting Goods	1,800	3.00	5,400	55	99,000	7	6,930
Toys	3,600	2.50	9,000	55	198,000	6	11,880
Gifts	2,000	3.25	6,500	50	100,000	10	10,000
Hobby Shop	1,200	3.25	3,900	45	54,000	10	5,400
Stationery & Cards	4,500	3.25	14,625	50	225,000	7	15,750
Sewing Machines	3,800	2.25	8,550	55	209,000	5	10,450
Florists	750	3.50	2,625	55	41,250	10	4,125
Cards & Gifts	750	3.50	2,625	50	37,500	10	3,750
Imports	3,500	3.00	10,500	50	175,000	8	14,000
Cameras	1,600	3.50	5,600	80	128,000	8	10,240
Liquor	1,300	3.00	3,900	100	130,000	7	9,100
Music	2,500	2.50	6,250	50	125,000	7	8,750
Services	7,000		17,850		287,000		28,700
Optometrists	700	3.00	2,100	50	35,000	10	3,500
Slenderizing	2,500	2.50	6,250	40	100,000	10	10,000
Beauty	1,600	2.50	4,000	40	64,000	10	6,400
Barber	700	2.50	1,750	40	28,000	10	2,800
Shoe Repair	1,500	2.50	3,750	40	60,000	10	6,000
Institutions	10,000		35,275				35,275
Savings & Loan	2,700	3.25	8,775		Guaranteed Rent		8,775
Bank	5,500	4.00	22,000		" "		22,000
Post Office	1,800	2.50	4,500		" "		4,500
Total Project	500,000		$937,375		$30,579,250		$1,274,855

PART II–CHAPTER 8

Designing the Shopping Center

In the foregoing chapters we have dealt with activities of seemingly two-dimensional character. The word "seemingly" should be stressed because a conscious consideration of the third dimension is inherent in all good planning procedure. Successful planning will result only if there is an ever present awareness of the kind of three-dimensional expressions that the two-dimensional plan makes possible.

It should not be thought that the various planning, design and engineering activities follow each other chronologically in a manner similar to the sequence of the chapters. They proceed simultaneously through exploratory and final stages, one augmenting the other, influencing the other, and more often than not, changing the other as the work progresses.

In this chapter we will discuss matters already touched upon. But where we have previously spoken chiefly about allocation of space to the various shopping center elements, we will now deal with the translation of planning results into three dimensions.

Because planning and design characteristics appear in sharpest focus in the larger, regional centers, the discussion is based mainly on this category. However, many of the planning factors appear in smaller projects, as do design and planning processes, though necessarily modified to the smaller scale of these projects.

The shopping center is one of the few new building types which represent a response to the emergence of the automobile as a means of mass transportation. It is a grouping of buildings and related spaces, establishing a new environment in 20th Century life, not only for shopping but for many other activities as well. Its building group and related spaces are not strung along existing roads but constitute a new planning pattern of their own. This new environment is dedicated to the pedestrian.

The center, furthermore, is the expression of a rare occurrence in our free enterprise economy — the banding together of individual businesses in cooperative fashion with the aim of creating greater commercial effectiveness through unified endeavor.

In order to succeed in giving proper recognition to this fact, it is important that the individual characteristics and expressions of the participants not be suppressed but, on the contrary, encouraged. It is, however, equally important that a strong common denominator be created to tie the individual enterprises into a homogeneous unit. These two aims appear divergent, but skillful planning and design can reconcile them harmoniously.

One might compare the organization of a shopping center with the governmental structure of the United States. A strong federal government represents the country as a whole and expresses those concepts and functions which must be exercised for the good of all. Yet, within this federal framework, free expression in many essential matters has been reserved by the individual states. The over-all character of the center must be one of corporate strength through the strength of the individuals.

This organizational form must be clearly recognized and acted upon by the planning team and will influence strongly the design of the tenant structures.

1) Tenant Buildings. The buildings containing individual tenant stores are in most cases planned for multiple tenancy. Only some merchandising categories, such as department stores, junior department stores, supermarkets,

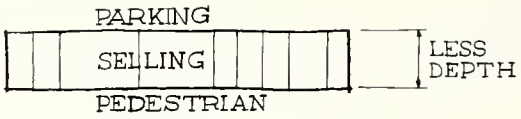
Airplane view of Mondawmin Center, Baltimore.
Architects: Mondawmin Board of Design; Pietro Belluschi, Dan Kiley, Kenneth Welch, Wilbur Smith, Seward Mott, James Rouse, Fisher, Nes, Campbell and Associates
Photograph: Maps, Inc., Baltimore

large fashion stores and restaurants, require free-standing structures. From the point of view of architectural unity and low construction costs it is preferable to have the great majority of stores located in multiple tenancy structures.

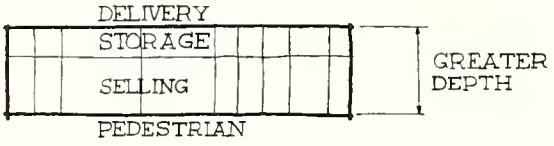
Buildings for single tenancy are planned in accordance with the specific requirements of the specific tenant but also in harmony with the character of the over-all shopping center architecture. Such special buildings afford an opportunity for a change of pace, in which case it should be in the nature of a variation of the main theme rather than the introduction of a new one. Beyond this, these single tenancy stores will follow the well established practices of store design.

The multiple-tenant structure has to provide for greatest flexibility. Its width, length and column spacing, as well as its height, will be decisive factors in achieving such flexibility. In order to be able to take care of varying requirements of a multitude of tenants, common denominators have to be found for all of these elements. In considering building height, the question will have to be raised whether, by increasing the height over an absolute minimum, advantages can be gained. A clear ceiling height of 14 feet may permit the introduction of mezzanines which some of the stores might utilize for non-selling activities or expansion. Sufficient attic space between hung ceiling and roof structure will mean some additional construction cost but will pay off in the ease of installment of mechanical and electrical work. The clear ceiling height will significantly influence the store-front treatment of all tenant stores. If heights are kept to a minimum, the space available above show windows and store entrances may become too narrow for effective signing and great difficulty

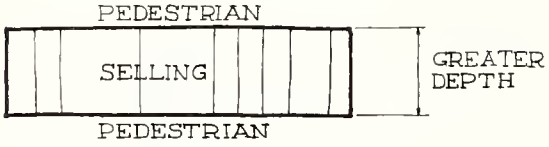
Stores in multiple – tenant structures.
Northland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Ben Schnall



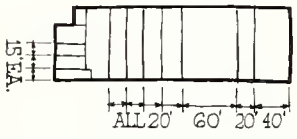
Small depth is needed if service facilities are in basements and pedestrian traffic moves only on one side of structure.



Greater depth is needed if delivery is at back of store on ground level and storage facilities have to be provided on ground level for each tenant.



Greater depth is needed when shopper traffic moves on both sides of individual stores.



Stores of varying depth and width can be arranged between multiple-tenant structures by skillful division and orientation of stores.

will be encountered in disciplining the signing to keep it within the store front areas. Low ceiling heights will result in an insignificant exterior appearance of the structures, detrimental to the impression of the center as a whole. Generous ceiling heights, on the other hand, will result in opportunities for more effective and handsome store treatments and the possibility of easier enforcement of sign regulations.

Depth of the structures will depend on various factors. If service facilities are located in basements or on any level other than the main floor, then the entire ground floor will be available as a merchandising level for sales activities. In this case, depth requirements will be less than if service facilities were to be located on the main merchandising level, in which case part of that level would have to be utilized by each tenant for activities such as loading areas, stock rooms, employees' quarters, offices, etc.

In shopping centers in which most of the individual stores have two store fronts and two entrances (one toward the parking area and one toward the pedestrian area) greater depth is called for because of the double entrance depth required for each store.

A structure which to a large degree will contain small tenant stores may require less depth than one with larger tenant units. Thus, depth may vary from 80-180 feet, depending on the conditions described above.

Column spacing must be carefully considered because it has a controlling effect on the manner in which the total selling space may be divided into individual stores. If columns are spaced too closely together, the freedom of dividing the space will be seriously diminished—especially when larger tenant units occur. Too close column spacing will also interfere with the ability of the individual tenant to arrive at an efficient merchandising layout.

In deciding on the column spacing, the characteristics of leasing procedures will have to be taken into consideration. Leasing of space is frequently, but by no means generally, done in multiples of 10, 15, or 20 feet. A 10-foot wide space will probably describe the minimum size of a tenant store; larger stores will often be rented at widths of 20, 30, 40, 50, 60, 70, 80 feet, and so on. Thus, 20-foot column spacing has often proved successful. For smaller store spaces and in smaller projects, a column spacing of 30 feet provides great flexibility of frontage. The division into individual stores will be more difficult if one of the column lines coincides with the store frontage line than if such column line occurs at a distance behind the store front line.

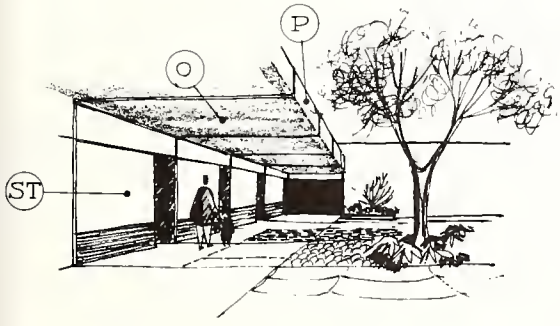
The column spacing in depth may be equal to the one in length. In order to achieve flexibility, however, it is preferable to keep greater spacing between these columns. For this reason column spacings of 20 feet in the length of the building and 40 or 60 feet and even 80 feet in depth have been extensively used. Though the wider column spacing may incur some additional construction cost, the additional cost may be compensated for by more advantageous leasing arrangements in larger projects, and by a less broken up view of the individual tenant's area. In basements the column spacing in depth may be reduced with little ill effect, as basement areas usually are utilized for secondary selling or non-selling purposes. For smaller projects with 30-foot spacing of columns in the length of the building, 20-foot spacing in depth has been found satisfactory.

In selecting materials and structural methods for partitions in individual stores and for hung ceilings, consideration should be given to the changeable tenant pattern, even though long term leases may be the rule. It is to be expected that one tenant will want to enlarge while another will want to give up his premises. (Even in the most successful shopping centers, as in all other retail districts, there are some business failures.) Partitions, therefore, should not

be used as bearing walls and should be built of materials and by methods which assure easy removal and the reusability of the material. Hung ceilings should be of the dry-built type in order to permit changes in ceiling heights, easy access to attic space, and the re-use of materials.

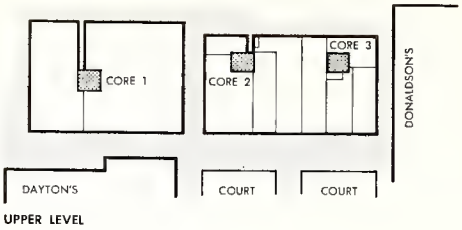
The arrangement of utilitarian facilities — tenants' washrooms, toilets, stairways, etc. — must be carefully studied. In the case of smaller tenant units such facilities can be provided for a group of tenants, instead of for single ones, provided the building code permits. Thus, construction costs can be saved as well as space which can be put to more effective use. In the case of a multiple level shopping center the introduction of service cores containing freight elevator, stairway, toilets, vertical ducts, etc., has proven extremely successful.

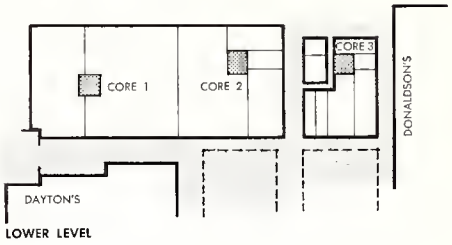
In most medium and large shopping centers, multiple use tenancy buildings consist of basement and ground floor. Show windows and entrances are arranged on all frontages adjacent to parking lots or pedestrian walks. Architectural treatment is shaped by the desire to create walks protected from sun, rain, snow and wind along all frontages. This represents one of the important contributions which shopping center design makes for the convenience of shopping activities. To accomplish the aim of protecting the shopper, various architectural treatments are possible. The two main devices are the cantilevered overhang and the column-supported roof extension. By selecting varying depths for the roof overhangs, by varying the heights at which they occur, by diversifying materials and construction methods, colors and surface treatments, a large number of solutions are feasible.

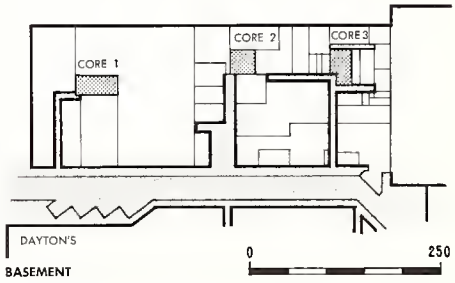


The illustration shows a cantilevered overhang marked "O", the tenant store front areas as "ST" and a parapet wall usually occurring above the overhang as "P". The schematic shows the arrangement of a roof extension supported by columns "C".

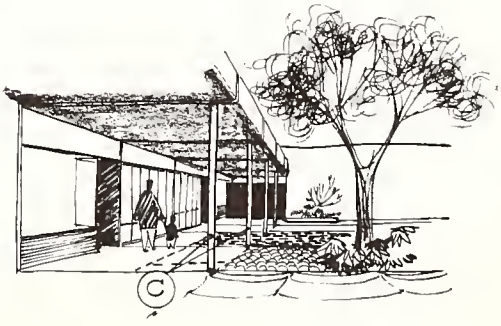
Architectural and design unity is recognized as an important ingredient of the over-all character of a shopping center. How far such design unity should go is, however, a moot question.





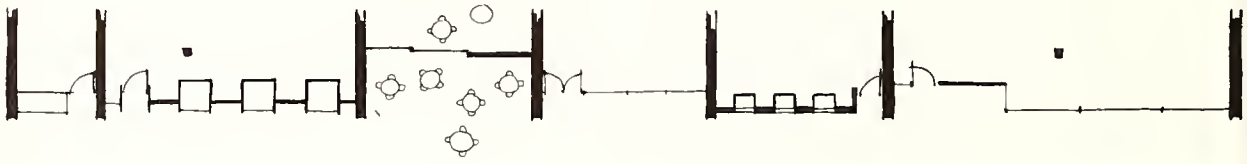


Service cores and service corridors in multiple-level center. Southdale, near Minneapolis.
Architects: Victor Gruen Associates



Anarchy in store front design.

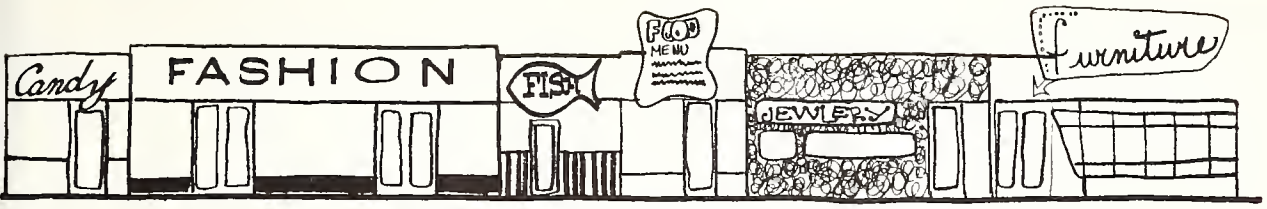
Regimentation in store front design.



Individuality in store front design within a strong architectural framework.

By now everybody agrees that a complete hands-off policy as demonstrated in the strip development which results in different depth, height, and treatment for every tenant, is out of place in a planned shopping center. Extreme defenders of architectural unity demand that the entire exterior treatment of tenant buildings be controlled. In some shopping centers all tenants are required to follow a standardized design for store fronts. In others, attempts have been made to standardize lettering and color schemes of all store signs. Advocates of such complete control are just as remiss in not recognizing the inherent character of a shopping center as a federation of many individual tenants, as those who believe that no control at all should be imposed. Complete control of store fronts is not only difficult to enforce in the long run, but also illogical and undesirable.

Regimentation is illogical because, as every store designer knows, store fronts of various merchandising categories and



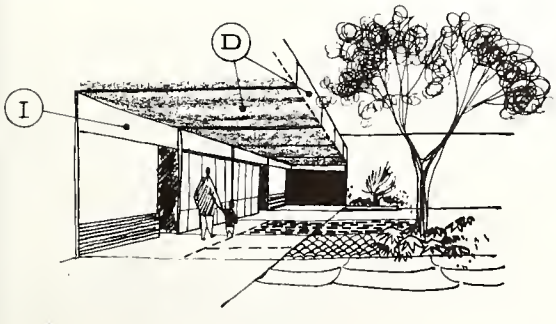
Tenant store signs should not be permitted to be attached to or protrude into controlled areas.

qualities have greatly divergent needs. A fine jewelry store cannot successfully display its minutely sized but valuable merchandise in the same framework as a furniture or appliance store. A food store needs a store front of radically different character from a high price fashion store. Chain stores will insist on using store front design which has become identified with their firms. This is a sad fact because much of it is of poor design quality. But it is still a fact.

One hundred percent control is also undesirable because it results in monotony and dullness. It diminishes the enjoyment of window shopping, which thrives on excitement created by ever-changing designs and colors. It establishes a false institutional atmosphere for an environment which should be relaxed and lively.

The cooperative spirit is best expressed if individual design of tenant stores is encouraged within certain limits which will be discussed later on. Around these individual design areas, however, there must be a framework of architecturally controlled areas large enough and treated with sufficient forcefulness to hold the varying expressions firmly together. There are many means by which the forcefulness of the frame can be enhanced.

Exteriors should be considered from the viewpoint of the possibility of giving architectural expression to the building. The parapet and the overhang can and should be completely design-controlled. In the store front area a measure of free expression for tenants' needs and requirements should be allowed. Treatment of this area, though not controlled by the architect, should be influenced by him. In the illustration the parapet and overhang are marked "D"; the store front area is marked "I."



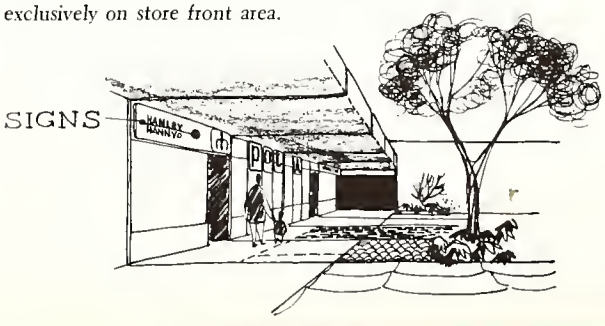
Unity and strength of architectural expression is only possible if the framework of controlled areas surrounding the influenced areas affords ample space. Through the ar-

South Bay Shopping Center, Redondo Beach, California Assoc. Architects: Jones & Emmons, V. Gruen, Architects for May Co. store: A. C. Martin & Assoc. Photo: G. Sommers

rangement shown in the illustration, the row of columns supporting the roof extension creates a strong and effective additional controlled area. The rhythmical pattern of the columns, which stand out because they are hit by direct light from the shaded store fronts behind them, will lend strong three-dimensional expression.

It should not be permitted to have tenant store signs attached to controlled areas or protruding into them. Arrangement of store signs on top of canopies or on parapets should be avoided because it destroys the over-all architectural character (see illustration).

Store signs should be arranged exclusively on store front area.



The areas below the controlled frame area, generally referred to as the store front area, should be influenced by the architect in order to prevent misusages, expressions of vulgarity and bad taste, disorderliness, clash of colors and surface treatments, and poor quality of materials or execution.

The introduction of dividing panels between individual stores will separate tenancies from each other, will establish an additional controlled architectural element, and will minimize possible color and texture clashes. These panels should be wide enough to count visually, their surface treatment should be a logical continuation of the over-all architecture. Their rhythmic repetition and pattern convincingly state that all of the stores, however they may differ from each other, are part of the over-all unit. Where such panels have been introduced, important secondary uses have been served. They may contain mailbox slots, emergency tele phones, general information and directional signs.

Disturbing paper signs should be forbidden.
Photograph: Gordon Sommers

Mail drop in dividing panel between individual store fronts. Northland, Detroit.
Architects: Victor Gruen Associates
Photograph: R. L. Baumfeld

Disturbing advertising—paper signs and stickers on show windows or flashing, illuminated signs—should be forbidden. Overlong solid wall areas should be discouraged though short areas may afford a pleasant variation. Any blank wall more than 20 feet long will have a deadening effect on window-shopping.

A further means of influencing store front areas is to establish in advance basic schemes for a large range of diversified stores. Such schemes are utilized by tenants who characteristically would not employ the services of an architect.

2) Pedestrian Areas. The creation of exclusive pedestrian areas was the most revolutionary measure introduced by pioneers of shopping center planning. Now it is completely

The size, location and character of firm signs should be determined by the architect. There should be a definite guide line below which signs cannot be placed. A maximum letter height should be held to (in Northland, maximum height for letters on stores facing the parking area is 4 feet and along malls and courts, 3 feet, because of the smaller scale prevailing). A general color scheme for store front design should be set. It should contain a wide range of colors and hues complementary to each other. Regulations concerning the quality of materials and construction methods should be specified. These regulations will apply to weather resistance, ease of upkeep and maintenance, and solidity of construction. In the interest of safety, it should be specified that store entrance doors must be recessed in order to avoid their swinging onto walkways.

Pedestrian area. The Boardwalk, Tiburon, California.
Architect: John Lord King. Photograph: Stone & Steccati

accepted by merchants and shoppers alike. If anyone today were to propose the introduction of automobile traffic in the malls and courts of shopping centers, businessmen would regard the proponent as insane. They have recognized that the exclusion of automobile traffic means good business. What has not been fully understood, however, is that it is not the elimination of mechanized traffic alone that establishes an active shopping environment.

Shopping is inherently more than just a utilitarian activity. The slogan "Shopping Should be Fun" has a deep meaning. The environment should be so attractive that customers will enjoy shopping trips, will stay longer and return more often. This will result in cash registers ringing more often and recording higher sales.

The task of creating such a pedestrian environment is one for which the modern architect has accumulated little experience. Such environmental elements as did exist in our towns and cities have been destroyed by the wholesale introduction of automobiles. We have become used to regarding the pedestrian as a nuisance and an intruder. Ironically enough, however, the growth of the automobile population is now forcing a new recognition of the pedestrian's rights. It makes necessary the separation of machines from people and consequently the establishment of exclusive pedestrian areas.

We must try to remember the important and vibrant role our town squares have played in the life of our communities. We must sensitively observe the colorful, stimulating, and commercially busy urban scenes in the market squares in Central European cities in order to understand the contribution to community life the open spaces in our new shopping towns can make.

In order to fulfill the vast potentials, these spaces must be more than narrow lanes between long rows of stores. They must represent an essentially urban environment. They should create opportunities for manifold activities. They must be busy and colorful, exciting and stimulating, full of variety and interest. They must not only make walk-

The wide garden court at Eastland, Detroit, an essentially urban environment..
Architects: Victor Gruen Associates
Photograph: Alexandre Georges

The crowded marketplace. Painting by Giovanni Michele Granieri. Courtesy of the John and Mabel Ringling Museum of Art, Sarasota, Florida

Places for rest and relaxation are provided in Southdale Shopping Center, near Minneapolis.
Architects: Victor Gruen Associates
Photograph: Warren Reynolds

Another view of the busy and colorful central mall in Southdale Shopping Center, near Minneapolis.
Architects: Victor Gruen Associates
Photograph: Warren Reynolds

Shopping malls provide opportunities for diversified activities. Play sculpture in Eastland Center, Detroit by William McVey.
Photograph: Alexandre Georges

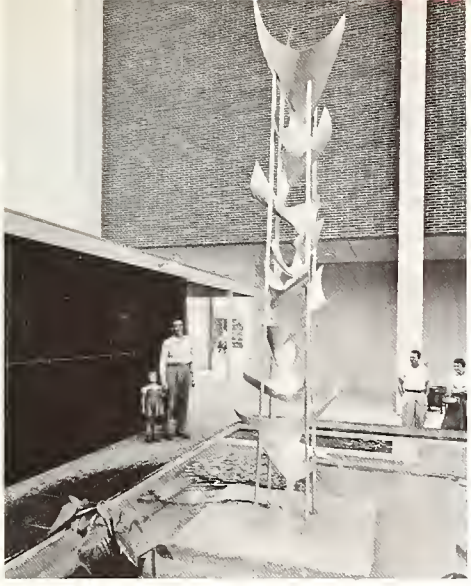
ing enjoyable, but must also provide places for rest and relaxation. They should surround the shopper with pleasurable experiences. All of the senses should be rewarded. Trees and flowers, music, fountains, sculpture and murals, and the architecture of free-standing structures are vital parts of the over-all composition.

The combination of water, in ponds, basins, or fountains, with sculpture and landscape is as old as man's artistic endeavors. Playing water appeals to the eye and to the ear. Like fire, it holds eternal magic. In Northland there is a fountain that adds the movement and color of sculptural elements to the movement of its water. Fountains can be a year around attraction by having them play in winter as well as in summer. This has been accomplished in Eastland by means of electric heaters which operate from the same circuit as the recirculation pumps.

Whenever fountains or bodies of water are placed in a public area, fear is expressed about accidents to small children. These dangers are generally exaggerated. They are insignificant in comparison with the dangers children face

A combination of water, sculpture and landscape in pedestrian areas. Noah Fountain by Lily Saarinen. Northland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Photograph House, Detroit

Fountain with moving sculptural parts. Note that water body is surrounded by protective curbs. Water Mobile by Richard Hall Jennings. Northland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Photograph House, Detroit



Fountain by Lindsey Decker. Eastland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Alexandre Georges

Covered crosswalk screened on both sides in Eastland Center, Detroit. Sculptured screen by Lindsey Decker.
Architects: Victor Gruen Associates
Photograph: Alexandre Georges

on city streets. However, it will be wise to keep such bodies of water shallow and to surround them with protective curbs.

If large open spaces exist between buildings it might be possible to consider using some portion of a pool for ice skating in winter. Ice skating areas in buffer strips are also possible.

Public events such as band concerts, fashion shows, special merchandising promotions, holiday celebrations, exhibitions, social events, are all part of the life in these open spaces. Restaurants, snack bars, outdoor cafes, are of essential importance to the scene.

The multitude of structural elements which serve and enliven the open spaces can, by their placement and character, make additional contributions. Covered crosswalks, screened on one or both sides, may be designed to act as organizers of space by dividing the pedestrian area into a number of intimate, pleasantly proportioned parts. In this way, spaces of differing sizes and atmosphere will give shoppers a change of pace; there will evolve large square-

Concert in Southdale Court, Southdale Center, near Minneapolis.
Architects: Victor Gruen Associates

Variation in size and atmosphere of open areas, Bay Fair Center, San Leandro, California.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

Variation in size and atmosphere of open areas, Valley Fair Center, San Jose, California. Note sculpture treatment of smokestack of central plant.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

Covered crosswalk area utilized for pay telephone, information sign and drinking fountain, Northland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Ben Schnall

shaped areas (plazas and squares); wide rectangular ones (courts); wide and long ones (malls); long, narrow spaces (walks and lanes); covered or partly covered walkways (arcades); wide spaces enclosed on two or three sides (terraces). Covered crosswalks can be widened in parts to form sheltered areas for pay telephones, drinking fountains, information and announcement boards.

Kiosks are small structures either freestanding or attached on one side to a crosswalk. Some of them contain stairways or escalators leading to basement selling concourses or community facilities. Minor sales activities, such as newsstands, tobacco shops, book stalls, souvenir and refreshment stands, key shops, can be either added to these or housed in separate kiosks. Larger ones can be successfully rented to lunchrooms, florists, candy shops. Because of their free-standing locations, kiosks, if not properly designed, may block vistas. Their construction must be extremely light; by the extensive use of glass a maximum of transparency can be achieved. Their use will profit those merchandising categories that thrive on visibility from all sides and which do not require high and bulky storage cases. Because of their strategic location, their appearance, including signs, must be completely controlled by the architect. Their generally high construction cost is justified if rented to tenants with high sales per square foot and good rent-paying potential.

Original French Kiosk.
Photograph: Courtesy of the French Government Tourist Office

Advertising kiosk in Roosevelt Field Shopping Center, Nassau County, Long Island, New York.
Architects: I. M. Pei and Associates
Associate Architect: R. C. Brugnoni
Photograph: Ezra Stoller

Outdoor eating terrace, Museum of Modern Art.
Architect: Philip Johnson
Photograph: Soichi Sunami; courtesy of The Museum of Modern Art

Sidewalk cafe, Southdale Center, near Minneapolis.
Architects: Victor Gruen Associates
Photograph:Warren Reynolds, Infinity Inc.

Outdoor eating facilities depend, of course, on favorable climate. However, the possibility for their installation and the length of seasonal usage can be greatly increased by awnings, windscreens, radiantly heated floor slabs, charcoal braziers. Food servicing problems can be overcome by buffet style self-service. (Successful outdoor eating places exist in all parts of the country. Among them are the Museum of Modern Art and Rockefeller Plaza in New York, Frascati's and Farmer's Market in Los Angeles, Jacques in Chicago.) Surprisingly, only a few centers have taken advantage of such surplus rental producing areas, in spite of the fact that their awnings and umbrellas can add color and gaiety, and that they provide a welcome shoppers' service.

In designing resting places, varying human preferences should be taken into consideration. Some people like to sit in conversational groups, others want to sit alone and yet others in pairs. Some like shade, some like sun. Consequently, seating arrangements of great number and variety should be provided. Seating should be comfortable, easy to keep clean, and simple in design. By placing benches near or around large trees, by constructing awnings and other shade-giving devices it is possible to protect people from sun and light rain.

Poster columns carrying information about special events and community activities, free-standing display cases rented to various industries, utility and transportation companies, will further enliven the scene and create income besides.

Rest benches at Northland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Photograph House, Detroit

Brown
PHOTO CO.

The size, shape and location of planting beds must be given careful consideration. They must not become obstacles to foot traffic. Their size should be limited but their number can be great. The low parapet walls enclosing these beds, if designed with sensitivity, can add color and interest. The use of colored brick, tile and stone will constitute welcome relief within the main pavement area. Though concrete will have to be, for reasons of economy, the main material for pavement, it can be pleasantly interrupted by brick, slate, colored concrete and other textured and colored materials in special areas.

An important design task faces the architect with regard to street furniture. Trash containers, cigar and cigarette receptacles, telephone booths, bicycle racks, benches, lampposts, sign stands, should be regarded and treated as an integral part of the design program.

A relaxed leisurely atmosphere in courts, malls and lanes allows the shopper to observe and contemplate. The opportunity, tragically absent in our traffic-filled streets, to bring works of art into direct contact with the people, as an integral part of architecture and landscape, is thus created. The developer is given the function of a supporter and encourager of the arts. The architect should urge him to accept this role as an extension of his civic responsibility. He can do so with the conviction that this further enrichment of the environment will contribute to the attracting power of the center, and because of it, to the business volume.

The task of integrating art with a commercial environment serving the broad public is a new one in our time. It finds the patron, the artist and the architect poorly prepared. The patron is concerned with the expenditures involved, and because he fears public criticism, hesitates to permit free expression of the arts. The artist is understandably too often unprepared to deal with the problems arising in connection with outdoor scale, wind and weather maintenance, and the need to create for a broad, new public. The architect, also understandably, only too often has had no experience in integrating expressions of the visual arts into his structures and the spaces between them. Even when willing and able to employ the work of artists, he will do so often in the form of a museum-like display instead of making art, architecture and landscape a living, meaningful whole.

Left
Planting bed with goldfish pond in Southdale, near Minneapolis.
Architects: Victor Gruen Associates
Photograph: Warren Reynolds, Infinity Inc.

Below
Bicycle rack, telephone booth and directory sign in Valley Fair Center, San Jose, California.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

Drinking fountains for grownups and for children, Valley Fair Center, San Jose, California.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

Sculpture in Northland Center.
Great Lakes Group by Lily Saarinen.
Photograph: Photograph House, Detroit

Sculpture in Northland Center.
Birds of Flight by Gwen Lux.
Photograph: Ben Schnall

Works of art were made an integral part of Northland Center. After the developer had agreed to a $200,000 budget, a procedure was inaugurated which later on was repeated successfully in a number of other centers: an art program was outlined. In it was stressed the fact that the shopping center would be a place for activities connected with shopping, walking, and relaxation, that it would be visited by families—but to the largest degree by women and children. Therefore, it was not the place to portray drama, heroism, or tragedy; on the contrary, humor, color, movement, lightheartedness, were given as thematic guides.

Another part of the program outlined the aims and dealt with the physical requirements each artist would have to consider; such an expression of art would have to stand up against inclement weather and would have to be mounted in such a way that winds would not blow them down. Snow, ice and rain would have to be taken into account. Finally, the architect's basic concept of each of the open spaces was explained in plan and through perspective sketches. Ten locations were indicated where the architect's original plan visualized fountains, sculpture, murals, mosaics, etc. Approximate sizes and the architect's desire

Sculpture in Northland Center.
Turtle by Arthur Kraft.
Photograph: Photograph House, Detroit

Sculpture in Northland Center.
Bear and Boy by Marshall Fredericks.
Photograph: Photograph House, Detroit

Sculpture in Northland Center. Fish Group by Richard Hall Jennings.
Photograph: Photograph House, Detroit

Sculpture in Northland Center.
Baby Elephant by Arthur Kraft.
Photograph: Photograph House, Detroit

Sculpture in Northland Center.
Giraffe Family by Malcolm Moran.
Photograph: Photograph House, Detroit

Sculpture in Southdale Center.
Unicycle Performers by Dorothy Berge.
Photograph: Anthony Lane

Sculpture in Southdale Center.
Boys on Stilts by Louise Kruger.
Photograph: Warren Reynolds, Infinity, Inc.

for vertical or horizontal accents were discussed in each individual case. The developer expressed the wish that artists working in the region in which the shopping center was to be built be given the opportunity to execute a major part of the program.

After reviewing the work of a number of artists, the architect selected a group of ten who were invited to submit sketches and sketch models. Price ranges for the cost of the individual projects were set. The outlined program was explained to each of the participating artists. A specified sum of money was provided for each artist whose work would not be accepted. The ten artists went to work with tremendous enthusiasm and a large number of sketches and sketch models resulted. After discussions between the developer and the architect, a selection was made from these.

After the opening of the shopping center, the developer, the executives of his organization and the tenants declared themselves delighted with the results. The publicity value and promotional opportunity were impressive. Even criticism of individual pieces and the resulting controversies were valuable as an expression of community life.

Public Events Building in Eastland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Alexandre Georges

Children's zoo, Southdale Center, near Minneapolis.
Architects: Victor Gruen Associates
Photograph: Warren Reynolds, Infinity, Inc.

Theater at Northland Center, Detroit, architect unknown.
Photograph: Photograph House, Detroit

3) Community Buildings. Because of the social life developed in the pedestrian areas of a planned shopping center, the inhabitants of the region feel strongly identified with it. This can be further heightened by the construction of community facilities designed for indoor activities. One or more auditoriums have been made successful components of major centers. They should be designed for greatest flexibility of use, in order to accommodate such functions as concerts, movies, luncheon and dinner meetings, theatrical performances, educational courses, church services, civic meetings, etc. They should have either their own kitchen facilities or be in a position to use the facilities of an adjoining restaurant kitchen. Because they are used characteristically on all days of the week and all hours of the day and evening, they should be planned in such manner that they are accessible even when the center proper is closed. Meeting rooms of varying sizes should be placed in the vicinity of the auditorium, to be used for business luncheons, and other meetings. Auxiliary rooms such as waiting rooms, checkrooms, public toilets, storage rooms, should be planned adjoining them. In many shopping centers these facilities are grouped on the lower level, together with the offices of the center and a number of service stores, such as barber and beauty parlor.

These community facilities serve a secondary role by making it easy for the center's operator to get together with the executives of the tenant stores. They can also serve as a meeting place for the Merchants' Association or the Chamber of Commerce, which are formed in most shopping centers.

Other community facilities include public events buildings containing TV and radio stations and indoor exhibition space. In Eastland this is where Santa Claus and the Easter Bunny hold forth at their special times of the year.

Children's day nursery schools are usually not operated by the center but rented at low rents to kindergarten enterprises. Children's playlands are slightly removed from active shopping areas in order to avoid disturbance from the inevitable noise they create. In Southdale, a true children's paradise with miniature zoo, merry-go-rounds and games occupies space along a basement concourse.

Theaters can fulfill a double role. The theater in the Framingham Shoppers World is used for meetings and civic events during daytime and for movie performances in the evening. Northland has a legitimate theater located near the general parking area.

4) Lighting. The appearance of the shopping center after dark merits careful study, with regard both to its structures and its open spaces. Heavy shopping traffic occurs at this time and where night openings are held, a large percentage of the total business is actually conducted during evening hours. In some areas lighting fulfills primarily utilitarian and safety functions and must be engineered accordingly. This holds true for all automobile and parking areas, public transportation areas, and the covered walkways surround-

Lighting of pedestrian area emphasizes the show windows.
Eastland Shopping Center, West Covina, California.
Architects: Albert C. Martin and Associates
Photograph: Preston E. Mitchell

Floodlighting of trees and sculpture in Northland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Photograph House, Detroit

ing the tenant buildings. Yet by proper selection of lighting equipment and by careful design, aesthetic expressions can be achieved. The structures themselves, especially the department store and other tall buildings, should not loom as dark silhouettes. Floodlighting them will make the shopping center an impressive sight from surrounding roads and parking areas. Smoke stacks, water towers, shopping center signs should all be brightly illuminated for the same reason.

A completely different type of illumination should prevail within the pedestrian areas. Here the show windows of the stores should be the brightest areas. Lighting in the walking areas should not strive for over-all brightness but for interest and variation. This can be achieved by floodlighting of trees, sculptures and fountains, low-level lighting of flower beds, and illumination of seating areas by specially designed low-intensity lamps on posts. Lighting fixtures on colonnade columns will add liveliness. Well designed lighting will add immeasurably to a festive shopping atmosphere.

Lighting of flower beds and trees in Eastland, Detroit.
Architects: Victor Gruen Associates
Photograph: Alexandre Georges

The brightly lighted bus terminal in Eastland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Alexandre Georges

Tree-covered hillocks, rock forms and ponds surround Wildwood Center, Milwaukee (in planning stage).
Architects: Victor Gruen Associates

5) The Automobile Scale. We have considered design up to now mainly in relation to the pedestrian. However, because a center must also present a stimulating and impressive appearance when seen from automobiles which travel at a distance of as much as a thousand feet from the building group, design for the automobile scale must also be considered. The problem is rendered complex by the fact that most of the buildings will be only one story high. The department store may be completely surrounded by low buildings and a good part of the view will be cut off by parked automobiles. In many cases the land is devoid of interesting features. The architect confronted with these circumstances and with the full realization that other design considerations (the establishment of a convenient, pleasant shopping environment, sound economy and utility of structures) take priority, must use all of his knowledge and ingenuity.

A flat piece of land does not have to remain flat. Even practical considerations speak against this, as the best way to drain large parking areas is to make them sloping. An upward slope can be created at relatively low expense by using the earth from basement and foundation excavation as fill. Where two-level merchandising operations are advantageous, either for the department store only or for a number of stores, bulldozers can create parking areas that alternately slope up and down. Molding the terrain of buffer areas can turn them into rolling hills and valleys interspersed with ponds and tree-covered hillocks. Hills can be created to conceal service areas, and rock formations may be used to enliven the contours. Such hills, for example, will be used to achieve interest and utility in Wildwood Center near Milwaukee, where they are planned as a means of creating roads of pleasantly curved grades where otherwise steep inclines would be necessary.

Verticality in part of the building silhouette may be introduced by high-rise office buildings or medical buildings which, in many cases, will prove to be economically advantageous. These structures, the department store, and possibly a junior department store will probably be the only high-rise buildings; their architectural treatment, therefore, is of great importance to the appearance of the center from a distance. Obviously, as members of a shopping center group, such buildings must be treated in an entirely different manner than if they were free-standing structures, or if they were built in a continuous row along a street. They must be an integral portion of the entire architectural treatment. Their shapes must be simple, their surfacing such as to express prestige for the whole center. Yet their execution should not be so rich and elegant that they make the tenant buildings look insignificant.

The building silhouette of Northland, Detroit. Note illuminated water tower.
Architects: Victor Gruen Associates. Photograph: Photograph House, Detroit.

Simple treatment of free-standing structure. Department Store at Bay Fair Center, San Leandro, California.
Architects: Victor Gruen Associates. Photograph: Gordon Sommers

High rise building in otherwise horizontally developed shopping center. Cross County Center, Yonkers, New York.
Architect: Lathrop Douglass. Photograph: Gottscho-Schleisner

Another tool for the enrichment of the silhouette is the creative handling of purely utilitarian elements. Water towers and the smoke stacks of central heating plants can be turned into architectural assets. They can establish landmarks for the center and make it recognizable from afar. Tall flagpoles arranged singly or in groups, landmark signs announcing the shopping center, specially designed lamp-posts for the parking area, can give additional interest to the center as seen from all approaches.

Besides these positive measures, the prevention of disturbing features can do much for the center's architecture. By insistence upon underground telephone and electric power installations, dangling wires and unsightly posts can be eliminated.

The architect must concern himself not only with the appearance of the buildings beneath their roof-lines, but also with the various installations of a mechanical nature that habitually crop up on roofs. These above-the-roof structures are unsightly even on conventionally placed buildings. On shopping center structures which are seen from great distances they are ruinous. In order to achieve orderly design above the roof-line early attention must be given to the design of all mechanical and electrical installations, especially to the placement of air-conditioning and ventilating equipment. A central air-conditioning plant will most effectively remove the danger of having individual cooling towers and compressor housings appear on roofs. The engineering and leasing provisions of such central plants require the utmost skill and care.

But even when individual air-conditioning or ventilation installations are planned, it is possible to group and shield mechanical elements on roofs in orderly form or to find other shielded locations for them. The introduction of one master television receiving antenna will prevent the growth of a forest of individual antennas on the roofs.

Water tower establishes landmark sign in Northland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Photograph House, Detroit

Landscaping, Stonestown Shopping Center, San Francisco, California.
Architects: Welton Becket and Associates
Photograph: Herbert Bruce Cross

6) Landscaping. Landscaping is a task which must proceed in the closest integration with site planning, architectural design and, especially, design of the pedestrian areas and the art program. It should never take on the character of exterior decor limited to the addition of a few plants here and there.

Planting should be informal and natural as a contrast to man-made structures. The conservation of existing natural features such as trees, rock formations, water bodies on the site, can add immeasurably to the impression the center gives when seen from surrounding parking areas.

One of the first steps should be a survey of existing trees. Large and healthy specimens should be looked upon as a great asset, and during the site planning changes in the placement of structures and in the arrangement of parking areas should be considered in order to preserve such trees. Their natural beauty, the fact that they provide shade, that they break up the monotony of vast parking areas, are worth sacrifices. In establishing the budget for landscaping, one should reserve sufficient funds for a number of such specimens to insure immediate effects. A home owner might be willing to wait and actually enjoy the process of seeing his trees grow up; a shopping center should look its best on opening day.

Large scale planting is not only beautiful but has definite utilitarian value. It acts as windbreak and as sound barrier; it can protect surrounding residential areas from traffic

Existing old trees were preserved at Bon Air Market, Greenbrae, California.
Architects: Victor Gruen Associates
Photograph: Phil Fein

noise. It can be utilized to screen disturbing sights and finally, it provides welcome shade in parking and pedestrian areas.

Planting material should be indigenous to the region. Not only will it look natural, but it will thrive and prosper without becoming a maintenance burden or ultimately requiring replacement.

Every opportunity for planting in parking areas should be fully utilized. Such opportunities exist in the strips which divide individual lots from each other and in the dividers between internal roads and parking areas. Also available for planting are the triangular pieces occurring at the ends of stall groups, circular pieces around lampposts and the borders of walkways. The buffer areas offer an outstanding opportunity for imaginative planting. In the buffer and parking areas tall trees might be planted as landmarks.

Planting in pedestrian areas must be designed to look attractive at all seasons. In cold climates evergreen plants will provide greenery even in winter. Flowering plants should consist partly of perennials and partly of annuals to assure blossoms throughout the summer. Planting beds placed above underground structures need special structural framing to support the load of soil and waterproofing. Special provisions have to be made for their drainage. Because large area plantings involve high manual labor costs, automatic irrigation and sprinkling systems equipped with automatic controlling devices are mandatory.

Planting in the parking area.
Old Orchard Center, Skokie, Illinois.
Architects: Loebl, Schlossman and Bennett
Photograph: Hube Henry, Hedrich-Blessing

Indigenous planting material. Eastland Center, West Covina, California.
Architects: Albert C. Martin and Associates
Photograph: Preston E. Mitchell

Planting in parking area.
Bullock's, Pasadena.
Architects: Welton Becket and Associates
Photograph: Julius Shulman

Symbol designed for Valley Fair Shopping Center, San Jose, California.
Architects: Victor Gruen Associates

Symbol designed for Southdale, as used on sleeve of Center policeman's uniform.

7) Graphics. Thousands of signs containing tens of thousands of letters are needed in the shopping center. They vary in size from impressive landmark signs, announcing the name of the center to the outside world, to one-inch letters directing shoppers to a mailbox. Because of their number and because, in order to fulfill their function, they have to be placed in exposed locations, they have a decided influence on the aesthetics of the center.

Architects are often inclined to regard signs as nuisances that ruin their creations and therefore strive, if they cannot

Landmark sign for Valley Fair.
Architects: Victor Gruen Associates. Photograph: Gordon Sommers

eliminate them altogether, to hold signs to a minimum in size and number. Because this attitude is not compatible with the commercial character of a center, it will not succeed in the long run. As soon as the architect turns his back, an untold number of signs will be plastered over all likely and unlikely areas without consideration to quality of design.

Designers should regard signs as positive elements of the over-all architectural composition. A general plan for the handling of graphic expressions must be closely integrated, and developed simultaneously with the architectural plans. The designing of the over-all graphic scheme and of all its elements should be in the hands of imaginative, skillful, and experienced artists.

The over-all graphic plan will determine locations and methods of signing. It will formulate a primary and possibly secondary lettering type as well as a color system that will control all individual signs. The graphic designer will create a logotype for the shopping center name, to be used in all cases where it appears, whether on large signs, on brochures or on advertising. When names are long, they should be shortened for graphic and promotional effectiveness. The name "Northland Regional Shopping Center," for example, was abbreviated for all signing and advertising to "Northland."

Even a short name, however, will be difficult to read and will not be recognized when it is used on a large area seen from considerable distance (landmark signs on water towers) or on a very small area (the sleeve of the center's policemen). This is where the need for a symbol becomes apparent.

The symbol must be simple and original to be effective. Its importance for the shopping center is equal to that of the trademark for mass produced articles. However, the best designed symbol will not fulfill its mission if it is not consistently put to use as part of signs, center literature, advertising, on trash containers, service vehicles, emergency doors, and in the restaurants on dinnerware, napkins and menus.

When the general graphic plan is set, the work on individual signs proceeds. In designing them their distance and the circumstances under which they will be read must be kept in mind.

A shopper approaching the center by car should be made aware of its existence by the symbol attached to a high structure. Coming closer, he should be confronted with a large sign announcing the name of the center; the sign should be installed close to the road on the periphery of the parking area. Clearly legible signs should direct him to the entrance roads. From here on, because of his diminished speed, he can be guided and directed to a parking stall by smaller signs.

Individual parking lots and lanes must be indicated in an easy-to-remember fashion. Symbols or pictorial signs are sometimes used in the belief that these are more easily remembered than numbers or letters. Only after the shopper leaves his car will his interest turn to the signs of the individual tenant stores.

This sequence of impressions must be understood for the proper size and placement of signs. Common mistakes to avoid: placing the shopping center sign on the department store building, placing the department store name along

Shopping center sign near public road, Waialae Shopping Center, Honolulu, Hawaii. Architects: Victor Gruen Associates. Photograph: Camera Hawaii

A combination of parking lot lighting standards and tenant signs. In order to enable the developers to enforce sign control within the shopping core, the tenants were given the privilege of announcing their names on these sign panels located along the approach roads. South Bay Shopping Center, Redondo Beach, California.
Associated Architects: A. Quincy Jones, Frederick Emmons, Victor Gruen
Architects for May Company store: Albert C. Martin & Associates
Photograph: Gordon Sommers

Symbol designed for Roosevelt Field, Nassau County, Long Island, New York, as used on shopping bag.
Architects: I. M. Pei and Associates
Associate Architect: R. C. Brugnoni
Photograph: Ezra Stoller

Directional sign along approach roads for Northland Center, designed by Alvin Lustig.
Architects: Victor Gruen Associates
Photograph: Photograph House

Sign announcing name of shopping center, using symbol above sign panel located near access road. Northland Center, Detroit. Graphic design by Alvin Lustig.
Architects: Victor Gruen Associates
Photograph: Photograph House

the outer road, attempts to make tenant signs readable from the public roadway.

Special events, such as fashion shows, parades, and night openings, can be brought to the attention of shoppers by announcement boards, with changeable lettering, situated near entrances to the parking area. Poster columns and bulletin boards within the pedestrian area serve the same purpose.

Tenant store signing in multiple tenancy buildings should be controlled. In the case of single tenancy buildings, however, exceptions will have to be made. Because their existence is of promotional importance to the center as a whole, their signs may be placed on the wall surfaces of their buildings but utmost restraint should be urged as to the size and appearance of such signs. It has been fairly well established that department stores in shopping centers need only modest designation.

Sign for single tenancy building.
Dayton's Southdale Center, near Minneapolis.
Architects: Victor Gruen Associates
Photograph: Anthony Lane

Above is an illuminated sign pole in the pedestrian area of Northland Center, Detroit. At the left is another Northland symbol, designed by Alvin Lustig, that is used on top of a sign post. The signs announce the name, segment of the pedestrian area, and give directions to public facilities and parking areas.
Architects: Victor Gruen Associates
Photographs: Photograph House; Ben Schnall

Signs in walking areas should be scaled to the pedestrian, who observes them at close range while moving slowly. They should be near eye level and small in size.

Name signs for particular pedestrian areas should be centrally located and supported by free-standing poles. Names should be chosen that are significant to the area and they should be easy to pronounce and to remember (Garden Court, Market Lane, Fountain Mall, etc.). Directional signs should be employed only for community and public facilities such as auditorium, rest rooms, individual parking lots, bus stations and taxi stands. Directory boards and maps listing all store names and merchandising categories should be located at strategic points within protected areas throughout the center. Identification signs should be attached to community and public buildings such as auditorium, air-conditioning plant, etc. Most signs should be illuminated for legibility at night.

Sign for single tenancy building.
John Wanamaker, Cross County Shopping Center, Yonkers, New York.
Architect: Lathrop Douglass
Photograph: Gottscho-Schleisner

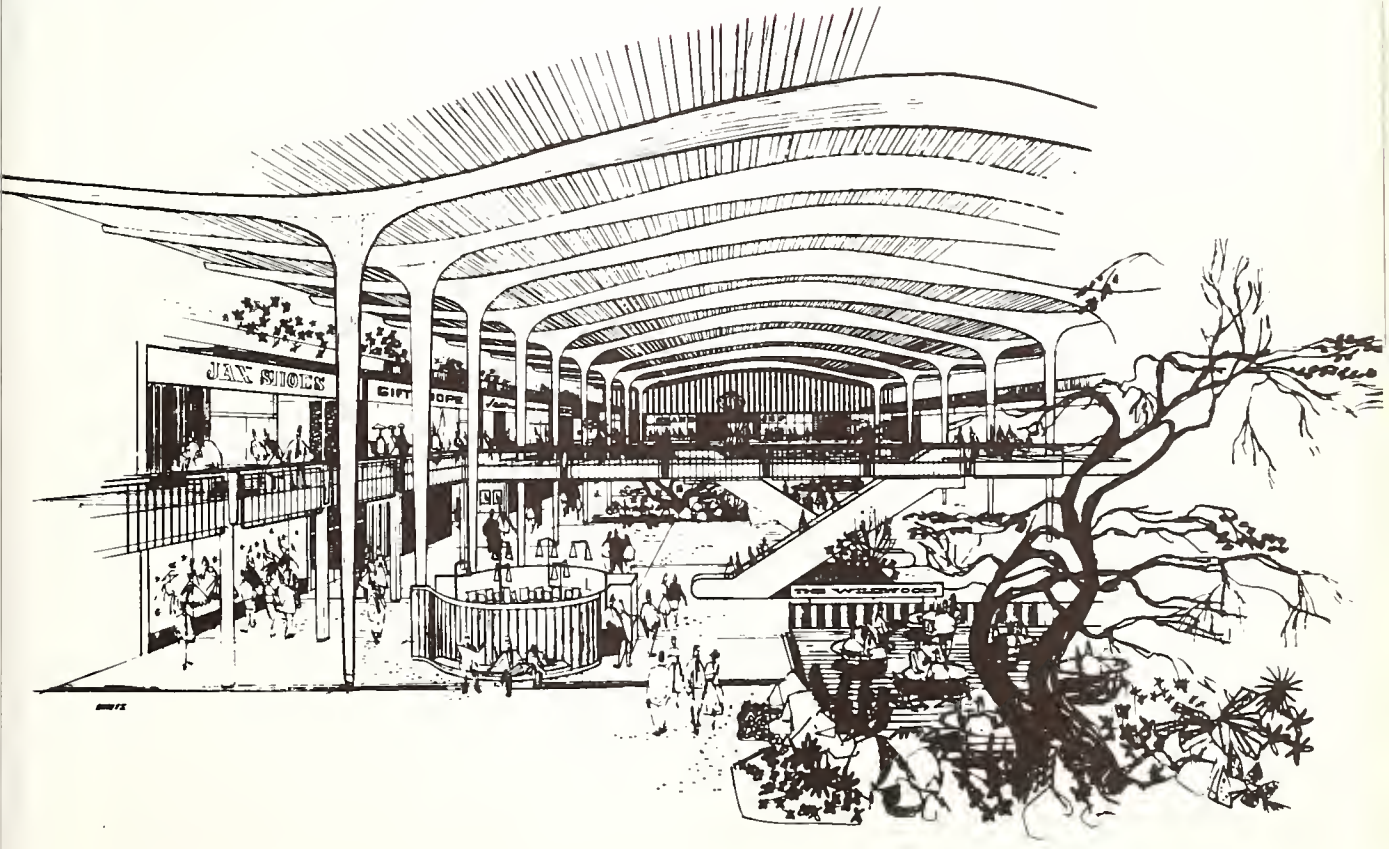
8) Centers with Covered Pedestrian Areas. We have directed our attention until now to design in relation to the most frequently occurring shopping center types. However, special conditions, such as limited sites, extreme climate, unusual topography, demand unusual solutions. Especially significant is the center with enclosed pedestrian areas, as represented by Southdale near Minneapolis, Harundale near Baltimore, and a number of centers now in the construction and planning stages.

The decision to introduce covered and completely climate-controlled pedestrian areas was, in the case of Southdale, based on the fact that the climatic conditions, with extremely cold winters and hot summers, were not favorable to the enjoyment of the outdoors.

The desire to obtain airiness and height for the pedestrian area, coupled with the economic necessity of keeping the covered ground area small, led to a multi-level merchandising scheme. Upper and lower merchandising levels were made directly accessible from parking areas which slope down and up from the surrounding areas. Part of the basement level is used for merchandising purposes and is accessible by a stairway in the pedestrian area and through individual stores.

This basic planning scheme (see Part II, Chapter 3)

Two merchandising levels in a covered shopping center with indication of tenant sign arrangement. Wildwood Center, Milwaukee, in planning stage. Architects: Victor Gruen Associates Photograph: Gordon Sommers



In the climate-controlled covered shopping mall, store fronts can be partly or completely open. Southdale Shopping Center, near Minneapolis.
Architects: Victor Gruen Associates. Photograph: Warren Reynolds, Infinity, Inc.

results in new design problems and possibilities. Instead of being a group of buildings, it must be built as a single structure under one roof. Yet the cooperative nature of a shopping center has to be expressed. This was achieved by introducing setback and protrusions in such a manner that the two department stores, the supermarket and a restaurant are clearly defined from the outside. Varying color and surface treatments indicate other store groups. Because of the complete protection of the pedestrian areas, a new measure of design freedom was possible for the treatment of all elements facing or being contained by such areas. Store fronts no longer had to be designed to resist bad weather conditions: even entrance doors to stores became unnecessary. Store fronts could be partly or entirely open, and movable grills or sliding panels could be used to close stores at night. Landscaping became independent of regional restrictions so that subtropical plants and flowers could be planted successfully. Open sales stands replaced enclosed kiosks. A large sidewalk cafe could operate summer and winter.

PART II–CHAPTER 9

Engineering the Shopping Center

A—Structural Engineering

The selection of structural framing is affected by a number of diverse factors. Because each project's physical characteristics, geographic location, and specific requirements demand a detailed investigation of possible alternates before a selection can be conscientiously made, optimum or most economical solutions cannot be easily prescribed.

Nevertheless, certain general criteria can be set up to relate the different component elements of a center to the structural characteristics of alternate methods of construction. We will first analyze these criteria as they apply to two extreme types of shopping center: The major regional center, and the minimum neighborhood center. We will then consider the factors influencing the selection of a structural system in terms of their application to centers in general.

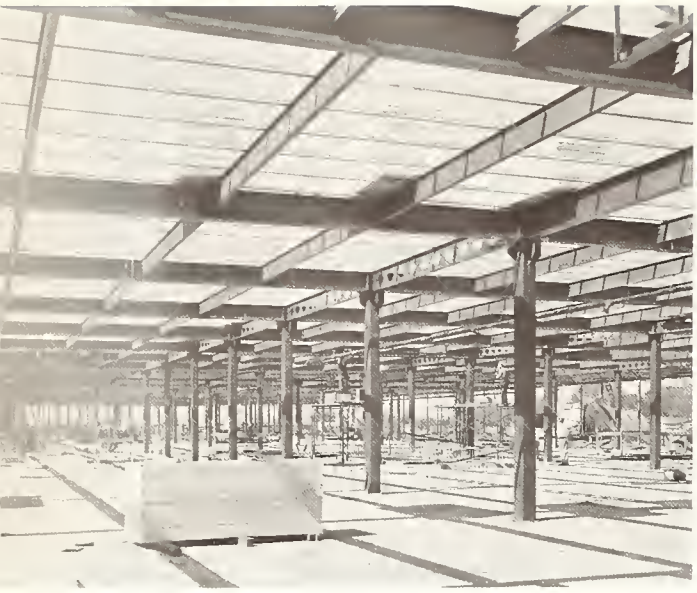
1) Structure

a) *Structure of the Regional Shopping Center.** The regional shopping center will generally include the following distinct building elements: typical multiple-tenant buildings; single tenancy buildings (department store, supermarket); utility buildings (power plant, covered truck roads, loading docks); common sheltered spaces, colonnades, overhangs, roofed malls, kiosks). Multi-story parking, in some instances, may also become an integral part of a regional shopping center project.

*Statements on planning, designing and construction are repeated (See Part II, Chapter 8) here with special reference to their influence on engineering design and techniques.

Typical Multiple-Tenant Buildings. In general, the primary factor to be considered in the selection of a structural system for a multiple-tenant building is flexibility of space use. During both the planning and construction stages (and, in some instances, even after construction is completed) individual tenancies are not yet defined and the tenants' specific requirements in terms of stair location, shafts, special equipment and so forth, are not yet established. Therefore, it is necessary that the structural system allow the greatest freedom for location of openings through floor and roof framing, and even make possible, with minimum difficulties, structural alterations after completion of construction. From this standpoint, structural steel is, of course, the most satisfactory framing system. Structural steel framing may not, however, present the most economical solution especially if, as is the case for most regional centers, fireproof construction is required by codes. When reinforced concrete construction is used, a conventional one-way framing system of joists and girders proves most satisfactory in allowing for the necessary changes and adjustments for special tenant requirements.

The selection of the column spacing is affected both by economic considerations (which favor relatively short spans) and by space use considerations (which favor the total elimination of interior supporting columns). Solutions invariably involve a compromise between these two extremes. Column spacing is also affected by the pattern of space partitioning into units suitable for typical tenant layouts. A 4 or 5-foot modulus is generally most satisfactory for partitioning the typical tenant building into individual stores. For a two-level center (basement and main floor only), a column spacing of 20 x 20 at basement level



Roof framing of typical tenant building. Note square steel-pipe columns with rigid connection to horizontal frame to resist seismic loads. Valley Fair Center, San Jose, California.
Architects: Victor Gruen Associates
Photograph: Melgar Photography

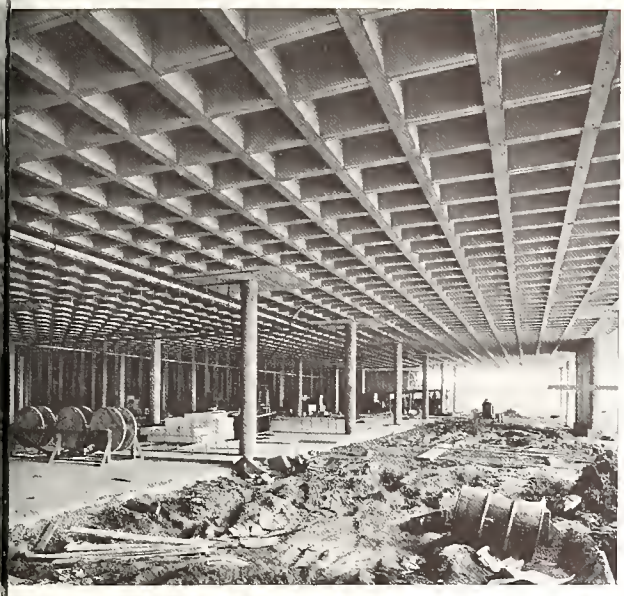
Roof framing in reinforced concrete. To avoid supports along the store front line, the roof of the continuous covered colonnade is suspended from the main roof framing. Northland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Photograph House, Detroit

supporting the heavy first-floor loads, and a spacing of 20 x 40 or 20 x 60 at main level supporting the roof framing has proven very satisfactory. It is both economical and suitable for easy partitioning of the individual tenancies. (See photographs of Eastland Shopping Center, Part II, Chapter 8.)

It is generally desirable to avoid column locations on store front lines in order to allow for maximum freedom in store front design. This can be accomplished by cantilevering the roof framing past the last row of columns to the store front line. A problem arises, however, when continuous covered colonnades are part of the project's design. The roof of the colonnades is generally lower than that of the main portion of the buildings and, if supports are to be avoided on the store front line, the colonnades may be suspended from the cantilevered edge of the roof-framing itself. (See photograph of Northland Shopping Center, Part II, Chapter 9.)

Single Tenancy Buildings. In the single tenancy building, the operational requirements of the tenant are substantially pre-established during the design stage. These buildings offer, therefore, the greatest potential for designing the structural scheme most economically, and on occasion most imaginatively, to fit the specific requirements of the individual tenant.

Department Store. It consists, generally, of multi-level construction, varying from two to six stories. The merchandising layout strongly favors a regular column spacing of equal dimensions in both directions. This spacing is best suited for the adoption of two-way framing. Two factors, then — the lesser need for flexibility and the equal column spacing — favor the selection of reinforced concrete construction. Economy considerations specifically point to the selection of a two-way framing, either in the form of waffle-type construction, as used at Bay Fair Shopping Center, or of flat slab with drop panel construction as in Dayton's Department Store, Southdale Shopping Center near Minneapolis. The difference in cost between these two alternatives is generally very small and may vary from city to city according to local practice and preferences. In general, the waffle slab construction lends itself best to relatively large column spacing (30 feet or more) because of its higher rigidity and corresponding lesser vertical deflections. The flat slab with drop-panel system has the advantage of minimum framing depth and proves most satisfactory in column spacings between 24 and 30 feet. Both types of two-way reinforced concrete framing have the advantage of relatively shallow depth (which results in reduced total building height, with corresponding cost savings in exterior walls, stairs, pipe and duct work con-



Waffle type construction with 30 X 30 foot column spacing. Bay Fair Center, San Leandro, California.
Architects: Victor Gruen Associates
Photograph: Moulin Studios, S.F.

The flat slab with drop panel construction and 30 X 30 foot column spacing. Southdale Center near Minneapolis.
Architects: Victor Gruen Associates
Photograph: Chester Freden

struction) and prove generally more satisfactory than conventional steel-framing construction. One-way steel framing is not as well suited for equal column spacing in both directions. Inasmuch as a removable type acoustic ceiling is desirable in a department store, and structural steel framing demands the installation of a second fireproofing ceiling or of fireproofing of individual steel members, this duplication tends to increase the total construction cost. On the other hand, steel construction may allow, especially for multi-story buildings, a shorter construction schedule than reinforced concrete would, and thus, in some cases, may prove the more appropriate choice.

While the bulk of department-store framing consists of uniform, uninterrupted spans, the locations where service facilities are concentrated (elevators, fire exit stairs, vertical ducts, shafts, chutes, etc.) present a number of special framing problems which force departure from the typical framing system adopted and which, occasionally, require the introduction of additional support columns. To resolve most advantageously the problem raised by these conflicting requirements, a mixed type of construction has been used for the May Company Store in Cleveland where two adjacent elements (a service tower and a 4-story main building wing) are developed. The main building wing,

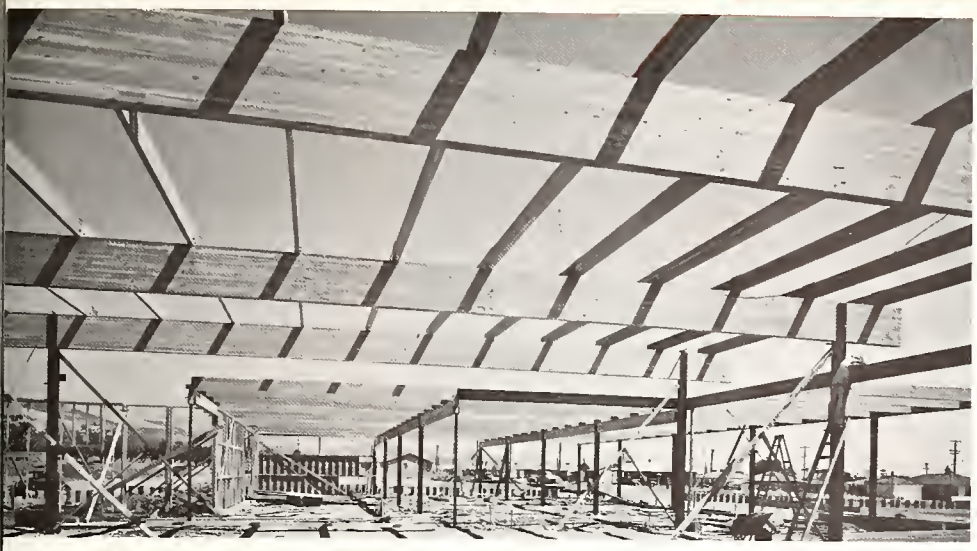
Conflicting requirements call for a mixed type of construction. Combination of flat slab concrete construction and steel frame construction for surface power. May Company Store, University Heights, Cleveland, Ohio.
Architects: Victor Gruen Associates. Associate Architect: Jack Alan Bialosky. Photograph: S. W. Emerson Co.

Laminated wood arches for Penn Fruit Supermarket (prototype). Black Horse Pike Shopping Center, Audubon, New Jersey.
Architects: Victor Gruen Associates
Photograph: Dufor Photographic Studios

Hinged base of laminated wood arches for Penn Fruit Supermarket.
Photograph: Dufor Photographic Studios

almost completely free of special framing conditions, is most economically framed with flat slab concrete construction, with column spacing of 30 x 30 in both directions. The service tower is framed in structural steel and has one intermediate mezzanine floor between each level of the main structure. The column spacing in the tower is kept to a 20 x 20 module because no long spans are required and, on the other hand, maximum flexibility for special framing around shafts and service installation is obtained. An additional advantage of this mixed construction system is that, because of its steel framing, the construction of the service tower can proceed with the utmost speed. Thus, the installation of special equipment (elevators, mechanical piping, air conditioning equipment, etc.) can begin while the construction of the concrete floors of the balance of the building proceeds at its most economical pace.

While there is general consensus on the desirability of equal column spacing in both directions for department store construction, varied preferences are encountered toward optimum spacing. In recent examples, typical column spacing has varied from 32 x 32 (Robinson's Department Store, Beverly Hills) to 25 x 25 (several Macy stores in different parts of the country) and to 24 x 24 in other stores. A typical column spacing of 30 x 30 has been found by many other stores to be the most satisfactory not only because its cost has not proven significantly higher than that of a 25 x 25 column spacing (especially when



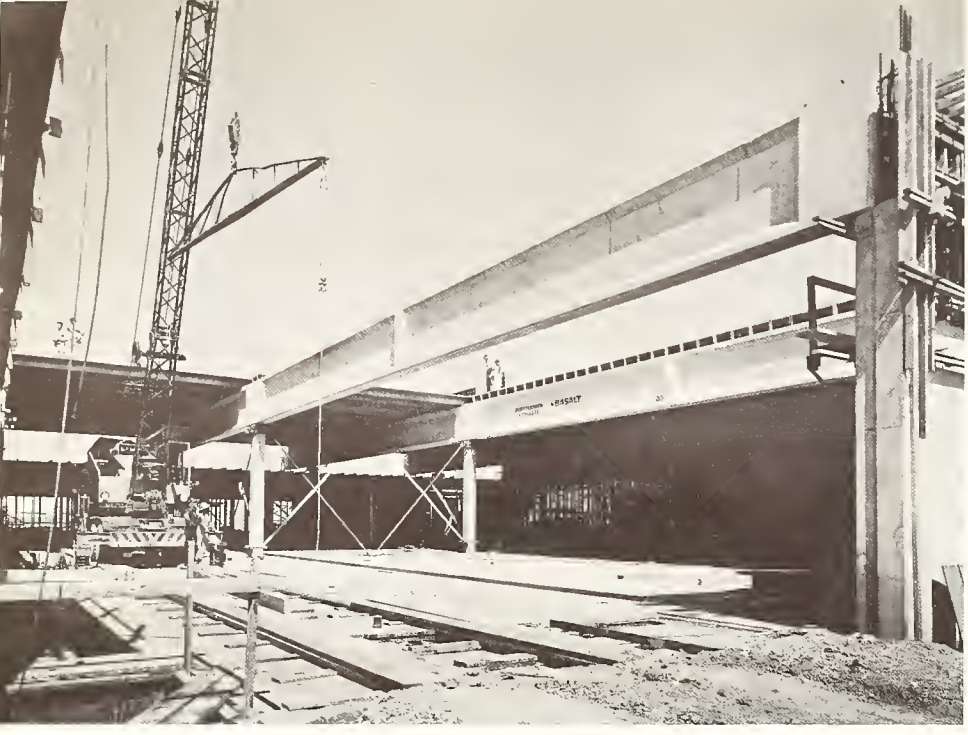
Laminated wood beams in Pala Shopping Center, near San Jose, California.
Architects: Victor Gruen Associates
Photograph: Morley Baer

Wooden box girders in food market.
Greenbrae Shopping Center, San Rafael, California.
Architects: Victor Gruen Associates
Photograph: Phil Fein

waffle-type construction is adopted), but because of benefits resulting from increase in flexibility of space use and in visual openness.

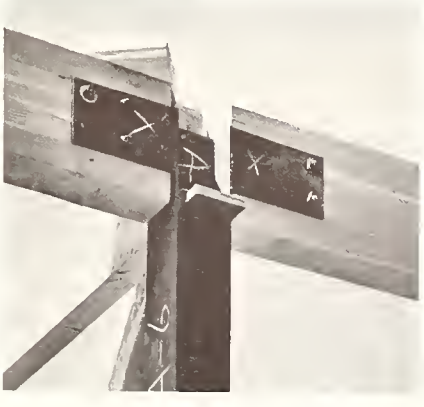
In exceptional cases, very large spans have been used for roof framing: the Jordan Marsh store in the Framingham Shopping Center, for example, is roofed by a columnless steel-framed dome 220 feet in diameter. The fact that this bold experiment has had no following would seem to indicate that the advantages of columnless construction in department-store framing do not offset the increased cost entailed. It is, however, probable that the development of new construction techniques (especially prestressing of reinforced concrete framing) will tend to increase within economical limits the dimensions of typical column spacing, even for floor construction, well above the present optimums.

SUPERMARKET. Unlike the typical department store, the supermarket (which almost invariably consists of a single-story merchandising space) derives the greatest advantage from long-span column-free framing. Thus, the great potential for imaginative structural solutions is offered by the supermarket design. When a fireproof structural system is not required, wood framing can be used either in the form of laminated wood arches, as in the Penn Fruit Prototype Supermarket, Black Horse Shopping Center, Audubon, N. J., or in the form of laminated wood beams used in the Food Market, Pala Shopping Center, Pala, Calif., or in the form of glued, nailed hollow box girders



Pre-stressed girders, supermarket, Bay Fair Center, San Leandro, California.
Architects: Victor Gruen Associates
Photograph: Moulin Studios

used in the Food Market, Greenbrae Shopping Center, San Rafael, Calif. Wood framing not only is relatively economical but also offers, when sensitively detailed, excellent potential for direct architectural expression of the structural framing and for strong visual identification of the supermarket structure. Laminated wood beams and hollow box girders are economically suitable for a span of from 40 to 80 feet. Glued laminated arches can, on the other hand, be used for much longer spans and offer one of the most economical space enclosure solutions. If the



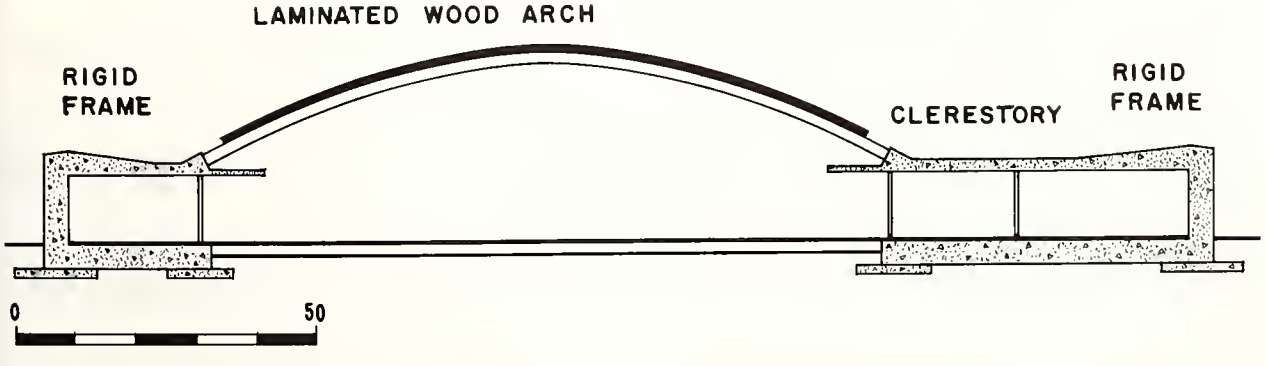
Steel columns with wood beam connection.
Pala Center, San Jose, California.
Architects: Victor Gruen Associates
Photograph: Morley Baer

Long span open web joists.
La Mirada Center, Los Angeles, California.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

Tapered steel beams for supermarket at South Bay Center, Redondo Beach, California.
Associated Architects: A. Quincy Jones, Frederick Emmons, Victor Gruen
Architects for May Company store: Albert C. Martin & Associates
Photograph: Melgar Photographers

wood arches are not extended to the ground but are supported by vertical columns, then the arch's horizontal thrust must be resisted, either by tie rods or by rigid frame construction of the side wings of the building. Where fireproof construction is required, the use of prestressed girders may be wise in lieu of laminated wood girders. Precast and lifted concrete arches may offer a satisfactory solution for longer span framing. Steel framing is also used extensively, especially in the form of tapered steel beams or in the form of open web long span joists.

Section through Penn Fruit Supermarket Building, Black Horse Pike Shopping Center, Audubon, New Jersey. Architect: Victor Gruen Associates



Long span, double cantilever, reinforced concrete beams in central power plant of Northland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Photograph House, Detroit

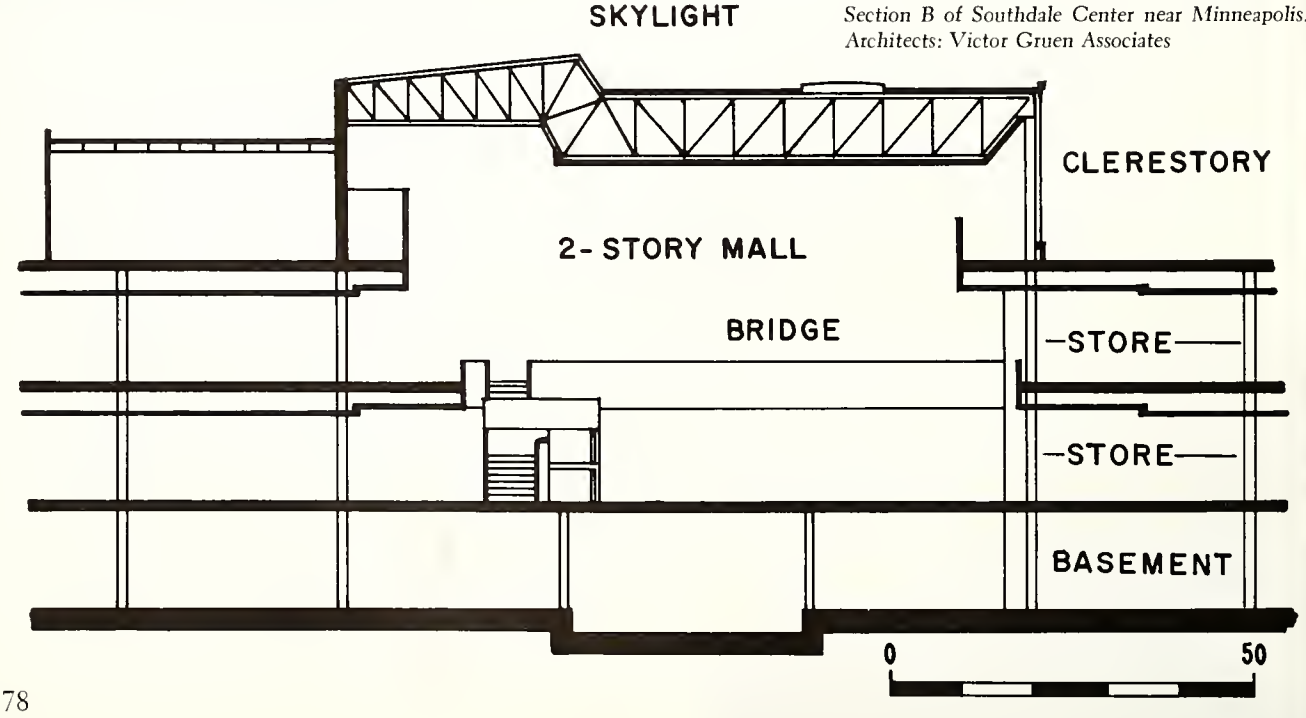
Colonnade, Valley Fair Center, San Jose, California.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

Utility Buildings. Central utilities for a regional shopping center are frequently accommodated in the basement space, centrally located within the project complex. In other instances, the utilities plant, where all the mechanical equipment for heating, refrigeration and transforming of electrical service is housed and operated, is entirely separate. Where separate buildings are provided, the utility building acquires the character of a typical industrial plant and its construction is best solved with long-span framing and minimum column interference. As a rule, structural steel will provide the simplest and most satisfactory framing for this type of installation. In Northland Shopping Center (designed at a time when restrictions on the use of structural steel were in force) the central utility building is framed in reinforced concrete, and its roof is supported by long span double-cantilever bents.

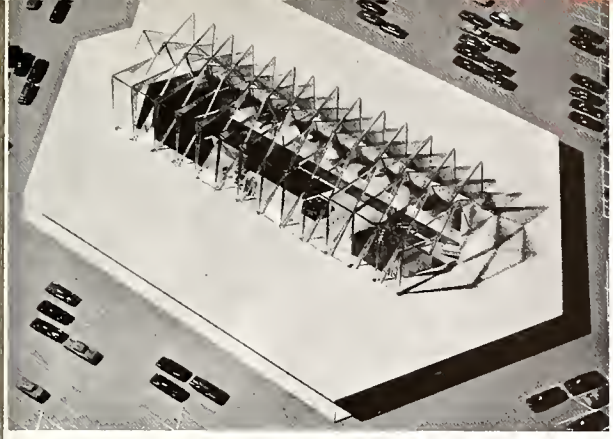
Whenever a covered truck road directly servicing basement areas is provided, special framing problems are encountered because of the long span necessary for truck maneuvering space. As any truck road must be fully fireproof, reinforced concrete construction invariably proves most satisfactory.

Common Sheltered Spaces. The architectural design establishes the character of colonnades, overhangs, and other special structures located in the common spaces in a shopping center. The greatest variety of opportunities and potentials for simple architectural expression deriving from the structural elements can be exploited in these elements of the project.

Perhaps the most interesting problem of structural space

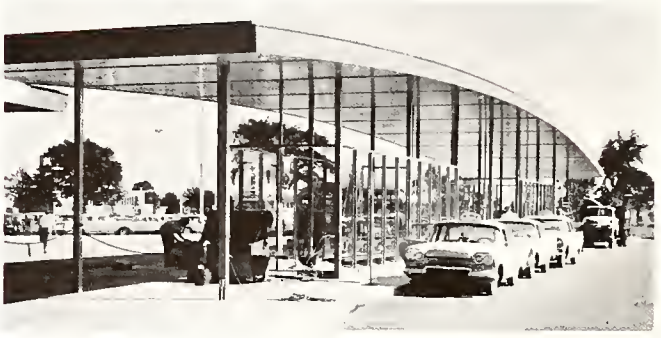


Section B of Southdale Center near Minneapolis.
Architects: Victor Gruen Associates



Skylight over pedestrian mall. Fifth Avenue South, Washington, D.C., in planning stage.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

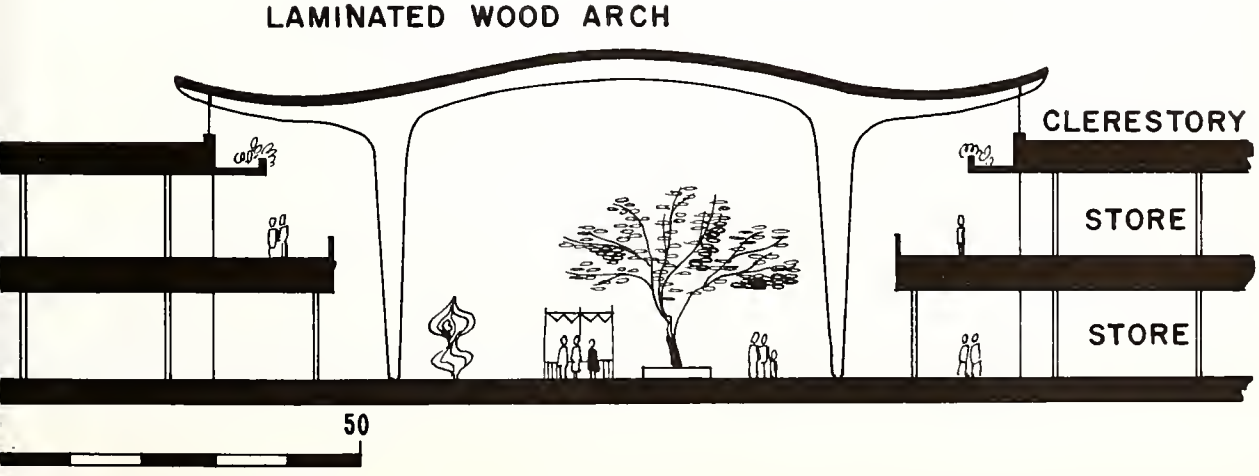
Sculptural quality of structure in bus shelter for Eastland Center, Detroit.
Architects: Victor Gruen Associates

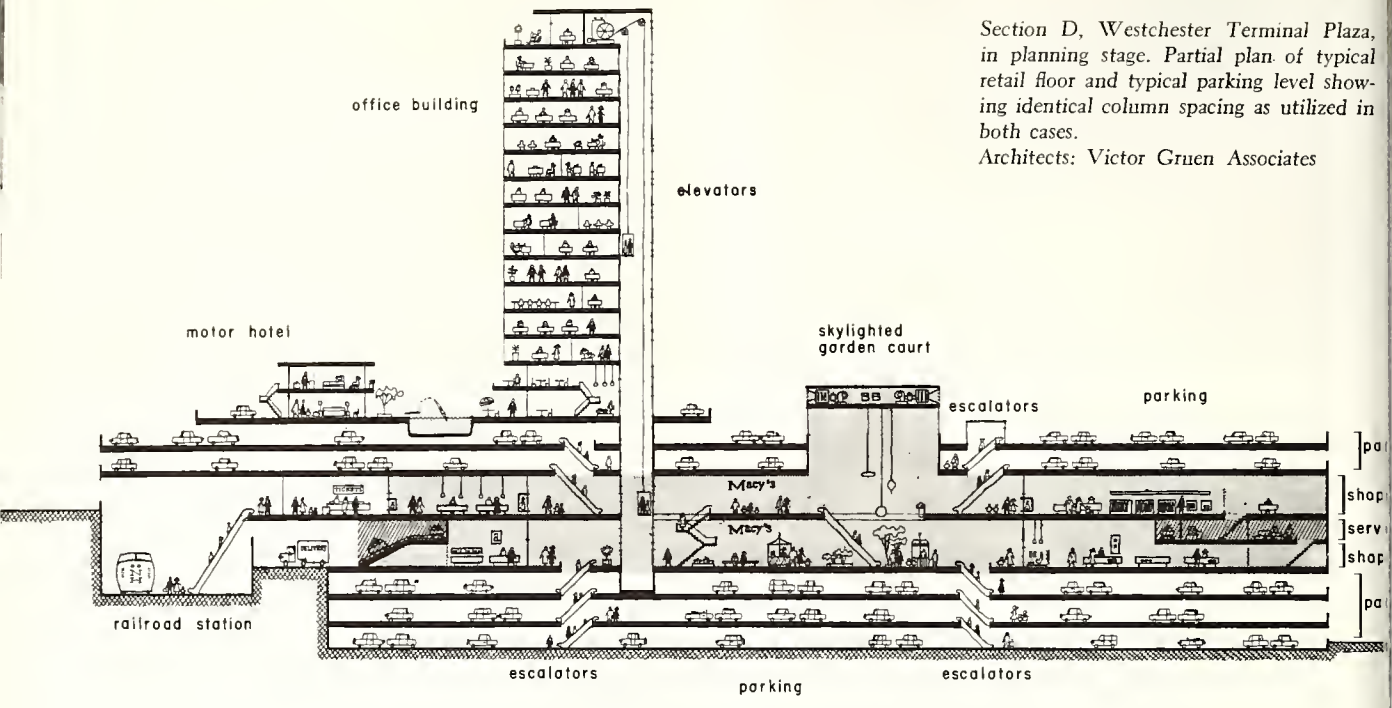


enclosure that a shopping center offers is the covering of central malls, such as occurs in the Southdale Shopping Center near Minneapolis. The covering of such a large space can be accomplished either by long-span elements which leave the space entirely uninterrupted by columns, or by special structural systems which purposely introduce columns as an architectural element contributing to the space definition of the central mall. Where it is desirable to introduce natural lighting into the central malls, by means of skylights and clerestories, the structural covering of the malls is generally raised above the level of the typical roof framing, offering very interesting potential for imaginative design. Thin shell forms, geodesic dome structures, or other types of special framing may be successfully adopted for the sheltering of the central malls of major regional shopping centers.

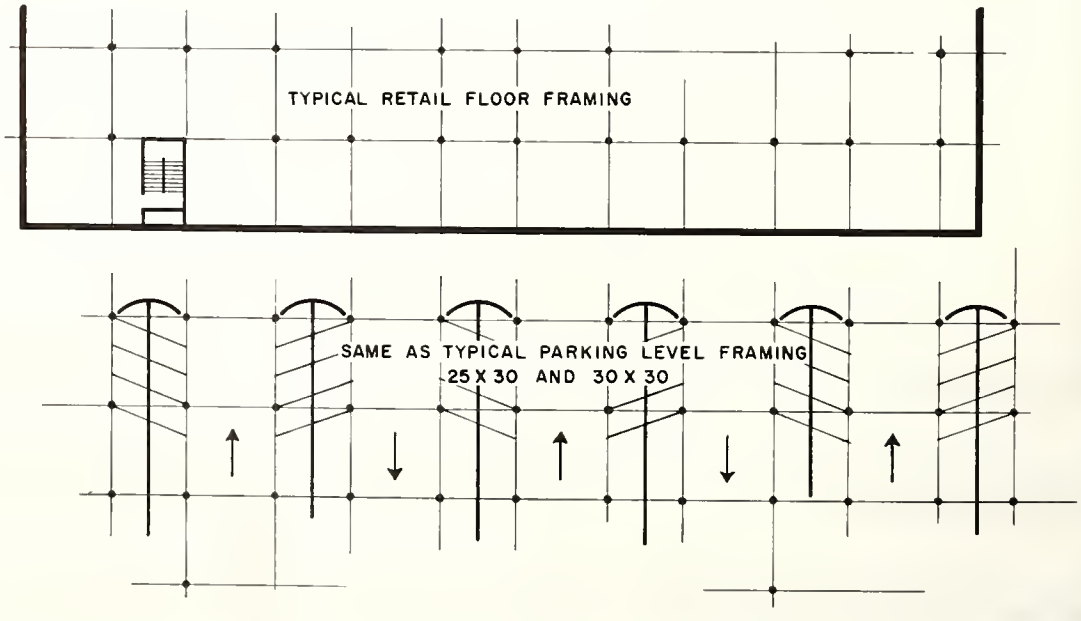
Individual kiosks, bus shelters, and other free elements can provide opportunities for fully expressed structural forms that help to define the character of the common spaces, and in some cases achieve almost sculptural quality.

Section C, Wildwood Center, Milwaukee, in planning stage.
Architects: Victor Gruen Associates





Section D, Westchester Terminal Plaza, in planning stage. Partial plan of typical retail floor and typical parking level showing identical column spacing as utilized in both cases.
Architects: Victor Gruen Associates

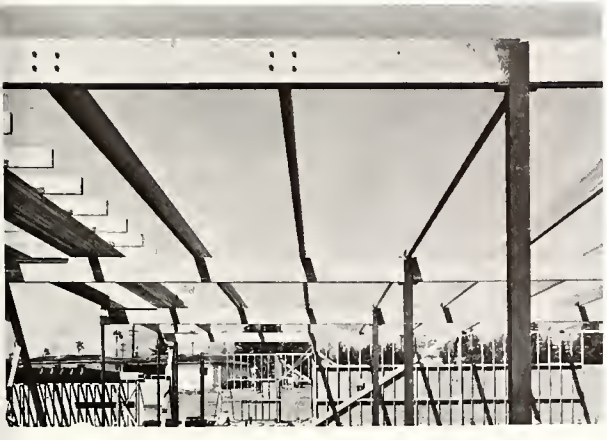


Multi-Story Parking. When a regional center, because of site space limitations, requires the incorporation of multi-story parking, very special structural problems arise, especially if the parking levels are above or below the merchandising levels. In this case, the column spacing, while conforming with the factors previously discussed, must also permit effective use of all parking level space; the solution to this problem will affect the ultimate economy of the structural project to a large degree. An extreme example of the integration of parking and shopping levels occurs in the projected Westchester Terminal Plaza, where a two-level shopping center is sandwiched between three levels of basement parking and two levels of roof parking. Column spacing in this case was selected at 30 feet in one direction and alternating 30′ and 25′ in the other direction. This spacing allows excellent efficiency of parking layout (angle parking with one-way circulation throughout) and very good flexibility in the subdivision of the tenant spaces.

b) *Structure of the Neighborhood Shopping Center.* Because of its characteristics, the neighborhood center requires a type of construction of much lower fire rating than the regional center. Its framing can usually, therefore, consist of wood and plaster construction, exposed heavy timber construction, or exposed structural steel. The selection of the system will depend, as far as economy is concerned, on local availability and habits, and, as far as appearance is concerned, on regional characteristics and precedents. Because of the reduced fire rating restrictions, it is possible to take advantage of the selected structural scheme in establishing the architectural character of the center. Thus, economically and without artifice, it is possible to develop a straightforward neighborhood architecture.

The Pala Shopping Center in Pala, Calif., used glued laminated wood girders supported by wood posts for its roof framing. Not only has the system proved most economical for this location which is well served by fabricators of glued laminated construction, but the center has a very restful and pleasant appearance stemming from the exposed and expressed structural framing.

Wood framing in neighborhood shopping center. Pala Center, San Jose, California.
Architects: Victor Gruen Associates
Photograph: Morley Baer



Exposed steel framing in neighborhood center. Waialae Shopping Center, Honolulu, Hawaii.
Architects: Victor Gruen Associates
Photograph: Camera Hawaii

In the Waialae Shopping Center in Honolulu, where climate conditions and the danger of insect infestation as well as local unavailability of structural lumber discouraged the selection of wood framing, an exposed system of open web steel joist construction proved both relatively economical and architecturally satisfactory.

The neighborhood center, in general, has only two types of differentiated buildings — the multiple-tenant building and the single-tenant building. The single-tenant building will generally be represented by the food market for which the same considerations will prevail that have been discussed for the regional shopping center. The multiple-tenant building will, to an even greater extent than in the regional shopping center, demand flexibility of arrangement into individual tenancies. In fact, in the neighborhood center some tenants (such as drugstore and specialty store) acquire a position almost equivalent to that of the single-tenant store in a regional center. Therefore, their specific requirements will usually be incorporated within the plans of the neighborhood center, and the structure will be designed accordingly.

c) *Intermediate Size Center.* Between the extremes of the regional center and the neighborhood center falls the full range of intermediate centers that constitute a large portion of the projects being developed. In each case, the selection of the structural system, while affected by the general considerations listed above, will be greatly influenced by local conditions and local preferences.

2) Factors Influencing the Selection of the Structural System.

Size of Project. Aside from the influence the size of the project has on the type of construction by virtue of fire resistance requirements, it will be found that, in general, it is most economical for a small project to adopt conventional and locally familiar types of construction. Neither the time nor the investment for experimentation with new systems or new approaches is generally justified in a project of limited size. On the other hand, a major regional shopping center — located where competitive, aggressive and experienced contracting firms are available — covering several hundred thousand square feet of floor area and designed so that a repetition of typical elements will occur on a large scale, offers an unusual chance for the investigation of the most advanced design techniques and for original developments conceived to answer most satisfactorily the requirements of the larger number of affecting factors. For such a project, the investment in design and construction experimentation will be well justified by the ultimate economies and advances achieved.

Location of Project. Location will affect structural design in various ways. Difficulties in connection with building codes (particularly, the reluctance of some building departments to accept new techniques of analysis or new theories, and to depart from obsolete or arbitrary restrictive rules) may penalize the use of certain materials. Another aspect of location that will influence the selection of the structural system is climate which may affect one system more unfavorably than others under extreme conditions. Location has further significance in terms of local availability of specific materials; for instance, the use of light-weight reinforced concrete is presently limited by the high cost of bulk transportation and by the relatively few production locations of light-weight aggregate. Lastly, the location of the project has a very definite significance in terms of local habits and preferences of construction methods. While, for instance, in some cities the selection and adoption of precasting techniques is accepted as an almost standard method of construction, in others it is still frowned upon as something very daring and experimental.

Physical Characteristics of the Site. The physical characteristics of the site, in general, will influence the selection of the foundation method but, unless substantial settlements are anticipated, they will not greatly affect the selection of the structural system. However, if settlements are anticipated, especially if differential in nature, it will be best to adopt, regardless of other considerations, structural steel framing and to design and construct the structure for non-continuous behavior, so that the differential in settlements that may occur will not overstress vertical or horizontal members.

Construction Techniques. Although no new materials have appeared in the construction field in the last half century unique enough to revolutionize the construction industry, it is true that a number of new techniques which apply to conventional materials have appeared recently, so that now there are new potentials for materials that had become obsolete. Welding for steel, glued laminated construction for wood, and prestressing and precasting for concrete offer significant examples. It is probable that further familiarization with precasting and prestressing techniques will widen the field of investigation into the framing of typical tenant buildings in major regional centers. It is also likely that an imaginative approach to welded steel construction may yield (either in the form of a simplified space frame or in other forms of a two-way continuous construction) an economical departure from the conventional one-way joist-and-girder steel framing. This development would make the steel structure well suited and economical for equal column spacings and relatively long spans, thus offering a very desirable solution for large department store construction.

Fire Ratings. The multiplicity of building codes and ordinances throughout the country and the fact that, in addition to local building ordinances, the Fire Underwriters' restrictions must be complied with, make it mandatory that each major project be thoroughly analyzed from the standpoint of fire rating and its influence on the structural system. In general, it is possible to adopt a lesser than Type I construction if the project is subdivided into a number of elements fully separated by fire walls. The conventional interpretation of full separation requires that the fire wall not only be extended for the full area of contact between store and store but that it also continue uninterrupted into the adjacent covered arcades. This, of course, made it impossible to adopt this solution in any large center. However, recent re-interpretation of the restriction has allowed limiting the fire wall to the storefont line which would not interrupt the continuity of the arcades. With this interpretation it is possible, subject to some sacrifice in flexibility, to subdivide major shopping centers into a number of areas properly separated by fire walls, thus allowing a lower fire rating classification and corresponding economy of construction.

Conclusions. In view of the fact that many of the concepts that affect the selection of the structural system are closely related to the basic planning and architectural design of the center, the creative collaboration of the architect and engineer is vital. Inventiveness and detailing are as much restricted by economic necessity as they are spurred by possible solutions of the problem.

B—Mechanical Engineering*

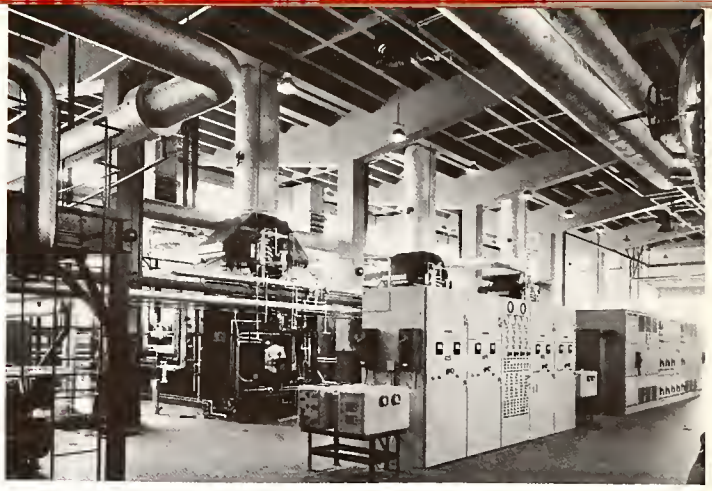
Modern developments in the mechanical and electrical fields have found increasing adaptation in the realm of shopping center construction. Longer shopping hours, due

*This part of the chapter deals with conditions that exist in large regional shopping centers. However, many of these statements, when properly altered to fit the situation, are valid for neighborhood and intermediate centers as well.

particularly to evening openings, have justified additional mechanical and electrical facilities to provide a controlled environment. The high standards of lighting levels have, at the same time, created corresponding increases in heat loads which must be calculated in designing air conditioning. Since design and construction costs related to mechanical and electrical systems can add up to approximately 30 per cent of the total project cost, it is obvious that this work demands more and more attention from developers and planners of all centers, particularly regional centers.

1) Heating and Air-Conditioning. Historically, commercial space tenants have been provided with heating facilities for the leased premises. The tenant normally includes the cost of operation as part of his expenses. Air-conditioning, if desired, was subsequently added by the tenant and operated by the tenant. Shopping center leasing today still follows this pattern and, although certain component parts of the mechanical system may be common to both heating and air-conditioning, an attempt is made to segregate their costs, and the tenant is expected to pay for the amortization of that part of the combined heating and refrigeration system that is applicable to air-conditioning, usually by a stand-by charge over and above the rent. In addition, the tenant often pays an operating charge, usually based on a pro-rata share of the actual total cost of operation of the system, including fuel, labor maintenance, etc. The type of system installed will vary from center to center; the extremes are a system based on an individual self-contained package unit located in each store, and a system that supplies chilled water, chilled air, hot water, or steam to all of the tenants from a single central plant.

Package Units. The use of individual package units provides the greatest amount of flexibility for the tenants. These units can be individually controlled; their power source may be derived from the tenant's electrical meter and the burden of design and installation may be left entirely to the tenant, thereby requiring little or no investment on the part of the developer. Service costs, such as filter changing, may be borne by the tenant, and, at most, the developer is expected to provide condenser water from a central cooling source; even this can be supplanted by evaporative condensers installed by the tenant. The primary disadvantages of such a system are space waste and, in certain states and locations, the requirement of a second (power) meter for each tenant, adding to the cost of the electrical system. Furthermore, inasmuch as the tonnage is computed for each individual space, and since this equipment is available in only a limited number of tonnage increments, the tonnage total for all package units is usually greater than the total tonnage normally required for an equivalent central plant system. Valuable floor area must be used by the tenants for the installation of the equipment unless the unit is located on the roof. Roof installations involve additional expenses in order to provide structural strength and concealing screens to prevent unsightliness.

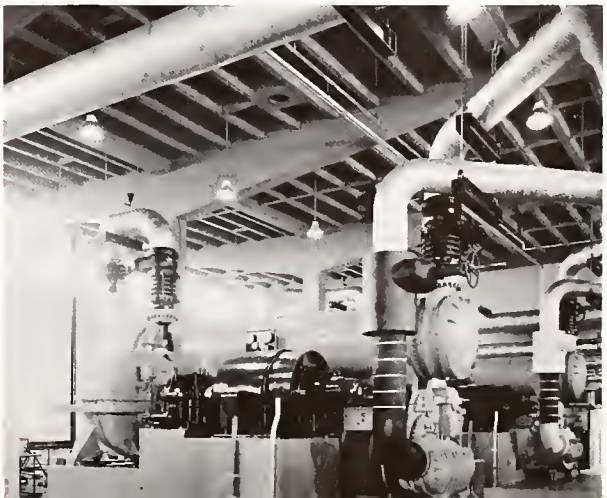


Central heating plant in Northland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Ben Schnall

Left to their own devices, with no limitations on the type of equipment, tenants sometimes will incorporate products of several manufacturers, involving duplication of spare parts, filters of different sizes, and in general a complex maintenance problem (which, however, is each tenant's responsibility). The amortization of the equipment cost over a short term lease becomes complicated, and the tenant will want either to remove his equipment at the expiration of a relatively short lease or might, if given the option, decide not to install air-conditioning at all. Lack of air-conditioning is in most locations detrimental to the business of the entire center and undoubtedly affects the sales volume potential.

The Central Plant. The plant for both heating and air-conditioning (or a combination of central installations) provides the most economical solution as far as capital cost and operating cost are concerned. This statement,

Central cooling plant in Northland Center, Detroit.
Architects: Victor Gruen Associates
Photograph: Ben Schnall

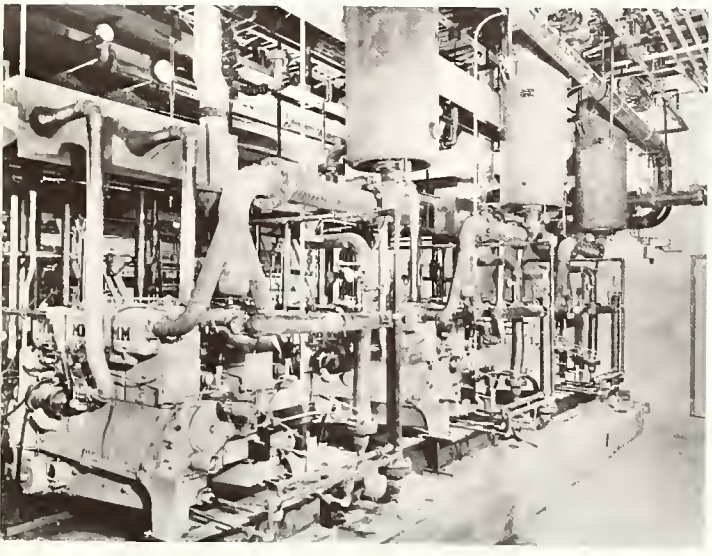


however, must be qualified. Practical experience has shown that a number of central plants have neither fulfilled the economic specifications for which they were designed nor have they resulted in fullest satisfaction to the developer or tenant. Characteristically, tenants who install their own plants seem to be satisfied with much lower performance standards than they would expect if central air-conditioning were provided by the developer. Because the designing of central air-conditioning plants for shopping centers is a comparatively new science, mistakes and errors in judgment undoubtedly have been made in the past. Superior skill and experience, and an intimate acquaintance with all non-technical considerations, are necessary in order to design and construct a successful central plant.

Equipment locations may be in the basement, on the roof, or both in combination. In some instances completely separate utility buildings have been constructed at a removed location. However, improved techniques of isolation, vibration dampening, and sound insulation now make it possible to locate all equipment, including compressors, in screened penthouses on the roof, thereby reducing runs of piping and making possible a single location for all mechanical equipment with a corresponding reduction in operating cost.

Choice of equipment will depend on availability, price of fuels, and prevailing practices in any given area. Low electrical rates justify electrically-driven centrifugal compressors; whereas low gas rates favor steam absorption systems or centrifugal machines with steam-driven turbines. (Exhaust steam from the turbines at reduced pressure can be used for kitchen and other heating purposes.)

The balanced system. Central plant in Southdale Center near Minneapolis.
Architects: Victor Gruen Associates
Photograph: Norton & Peel



THE BALANCED SYSTEM. A detailed analysis must be made to determine the degree of balance between heating and cooling requirements before equipment is chosen. It may develop, as it did in the Southdale Shopping Center near Minneapolis, that because of a compact two-level covered mall scheme, cooling is required even during the winter cycle, and that at times during the year an exact balance occurs between heating and cooling requirements.

The process of cooling a building may be better explained by stating that it is a technique of removing heat. In the case of a retail establishment, this heat is generated primarily by the occupants and by the lighting load. If the heat that is generated internally in any given space can be transferred to the perimeter of the building to compensate for the loss of heat through the exposed walls and roof, no additional heating generator will be required. Stated another way, every piece of equipment designed to chill water generates heat as a by-product, and every attempt should be made to utilize this heat rather than waste it into the atmosphere.

A balanced system was accomplished in Southdale by means of a combination of devices. The availability of an abundance of 50° well water and the proximity of a nearby lake for disposal made it feasible to use this water for precooling all the incoming air. During the summer months, the 120,000 CFM fresh air requirement for the entire center is introduced at the roof of the garden court. Air for ventilation enters each of the tenant spaces by means of grills located on the store fronts and is exhausted at the rear of the tenant space into the service corridor. This air is then circulated through the basement areas providing secondary cooling, and ultimately into the truck tunnel where, together with the automotive gases, it is exhausted to the atmosphere. (See typical section.)

At the operating engineer's direction, the wasted water may be discharged into the adjacent lake or it may be diverted through diffusion walls to glacial strata immediately below the ground surface. During the summer months, when the cooling load is greatest, this water is diffused under the ground at a temperature of 120°. During the winter months pumping from this high glacial stratum yields water at approximately 80° which can be used effectively for pre-heating the ventilating air that is introduced into the mall. Thus, the geological stratum is utilized as a huge underground reservoir.

Because of the availability of natural gas, it was decided to drive the centrifugal compressors with gas engines. The engine jacket water plus water jackets surrounding the exhaust manifolds, plus tenant condenser water, provide sufficient hot water to supply the complete heating needs of Southdale.

AIR-CONDITIONING CONTROL. The use of individual package units permits the tenant to operate his air-conditioning as he pleases, and those tenants who remain open for longer hours than the normal shopping center's schedule, require this flexibility. Control of a central plant is far more

complex, and provisions must be made for remote controls, transfer switches for individual tenants and, to the greatest feasible degree, automatic operation by means of time clocks and programming devices. Additional capacity for certain tenants, such as department stores, may be required to accommodate heavy sale periods with their correspondingly large occupancy loads.

Automatic "stop-start" equipment, temperature control, pressure controls, electronic data handling, etc., make it possible to conceive of a major mechanical installation with no operating personnel other than those required for periodic maintenance and filter changing. Alarm devices on critical equipment can be relayed to remote locations, such as a manager's office. Maintenance and service contracts can be negotiated for periodic servicing and emergency service calls.

Tenant's Work and Owner's Work. When package units are utilized, either as the sole cooling medium or in combination with a central plant, the tenant may be expected to provide all facilities within his space at his own cost. The tenant will be expected to contribute toward amortization of only that portion of the owner's work required to complete the system, and this may include a central cooling tower, a condenser water loop or similar facilities. If the owner elects to standardize equipment or establish superior standards of installation (such as ceiling diffusers versus side-wall grills), then the entire installation may be made by the owner. Tenant will reimburse owner, either by a cash payment or by a stand-by charge to be paid in addition to rent, as set forth in the standard lease agreement. If a central system is provided, it is preferable that the latter technique be followed because only a small portion of the system (air handling units and duct work) occur within the tenant's space. The owner can elect to provide the tenant with an air-conditioning cash allowance for the work within the tenant's space (and recover this cost by means of the stand-by charge) or choose to make no allowance, and permit the tenant to do his own work, subject to approval of plans and installation by the owner's architect. Although an operating saving can be achieved by metering air-conditioning located in a tenant's space from a central electrical distribution system, thereby enjoying the lowest possible power rate, the cost of such a distribution system can only be amortized over a long period, and present practice indicates that it is more advantageous to operate individual tenant equipment from the tenant's own electrical meter. The operating cost, in which tenants will then share on a prorated adjusted area basis, will be those costs related only to the central plant but usually include a management charge.

Heating and Air-Conditioning Operating Costs. Although it is possible to meter steam by measuring quantities of condensate return and to meter chilled water by means of therm meters (computing both volumes and temperature differentials) the cost of such meters and their operational difficulties make it desirable to eliminate entirely all metering devices. Several formulas for establishing tentative monthly charges to be paid in advance for the operation of both heating and cooling have been devised. These formulas are adjusted for occupancy types and areas, and are closely related to what the individual actual operating costs would be for a particular tenancy. Based on the actual operating cost for a stipulated period, adjustments are made on the ratio of an individual tenant's payment to all tentative payments of all tenants. For example: If the total actual operating cost were 80 percent of the total tentative monthly payments, each tenant would be refunded 20 per cent of the amount he paid.

2) **Plumbing.** Most of the problems with regard to plumbing requirements that occur in a shopping center are similar to those encountered in the planning for individual stores. It can be anticipated that major stores will provide toilet facilities for their customers. Some of the chain stores will provide toilet facilities for their employees, whether the center provides facilities or not, because they do not want their employees to leave the premises.

Groups of small tenants, on the other hand, can benefit when the developer provides combined toilet facilities; the maintenance of such facilities is normally shared by the group. Only cold water is normally made available to the tenant, on a metered basis at prevailing rates, to be supplied either by a local utility or by the developer if wells can be economically installed. Small users (and many tenants will have nothing more than a single drinking fountain) are charged a pre-established monthly rate in order to save the cost of meters. Facilities for heating water, if required by the tenant, are generally provided by the tenant. Preferably, small electric water heaters will be utilized; the use of gas for heating purposes should be limited to avoid venting problems. The lease should clearly stipulate the division of responsibility for providing drains and vents for those tenants requiring large plumbing installations, such as restaurants, dry cleaners, etc. Provisions should be made to accommodate under-floor facilities. It can be anticipated that detailed information will lag behind the developer's construction schedule and, whenever possible, floor slab installation should be deferred until the latest possible date.

The gas company will normally bring service to a single point within the center where the meters will be located. Any extension beyond this point should be at the expense of the tenant, and the engineering of the piping must be approved by the gas company.

The shopping center may or may not be sprinklered. Normally, insurance benefits will accrue only if the entire center is sprinklered, as fire separations between sprinklered and non-sprinklered areas are difficult to achieve. An over-all pattern of sprinkler heads should be established by the developer, and any deviations from this pattern, because of tenant partitions, should be paid for by the tenant.

3) **Mechanical Transportation.** The growing trend is to design compact shopping centers in order to reduce walking distances and this has resulted in multi-level schemes with

Public escalators in the center of the Southdale garden court.
Photograph: Warren Reynolds, Infinity, Inc.

underground truck service facilities. The movement of large groups of people and merchandise can best be handled by means of mechanical devices when they are incorporated in the initial planning phases. Freight elevators, dumbwaiters and mechanical conveyors have been utilized to bring merchandise from the basement to the upper selling floors. Public escalators, besides those in individual stores, have been used to connect pedestrian areas with an underground concourse (Eastland); to connect merchandising levels with each other (Southdale); and, in the projected Westchester Terminal Plaza will connect garage levels with merchandising levels. Recent narrow gauge tread design on modern escalators will accommodate children's strollers and shopping carts, thereby eliminating the need for ramps.

Parking lots and garages accommodating from 6,000 to 10,000 automobiles may well justify the installation of moving sidewalks. Their primary function is to transport passengers within areas not designated for shopping, and to bring customers from such non-shopping areas to the stores. An excellent example are the moving sidewalks designed for Dadeland, Florida, where they are arranged on an incline connecting parking areas with merchandising areas one level higher. Moving sidewalks have been incorporated within the 4,000 car parking garage for the County of Los Angeles, and the 5,000 car parking garage projected for Westchester Terminal Plaza, connecting with escalator wells and vertical transportation.

Moving sidewalks, however, would be out of place within the shopping area proper, because there the customer strolling leisurely, without mechanical assistance, becomes the most desirable shopper.

The leisurely shopper, if relieved of the burden of carrying purchases, will spend more time in the center. There is a growing trend toward providing package pickup stations, particularly for department stores and supermarkets. With this system, purchases are accumulated at a single point, and the customer drives to this location to load the packages. Strategically located spiral package chutes and a system of converging belt conveyors are necessary for an efficient package accumulation system.

C—Electrical Engineering

Negotiations with local utility companies should begin early in the planning phase in order to determine sources of supply, available voltages, and published rates at various voltages. The connected load for a regional shopping center will be of such magnitude that detailed analysis will be in order, with particular attention paid to space requirements, cost of transformer vaults, cost of distribution at various voltages, dimensions of busduct and conduit, advantages of purchasing standardized mass-produced equipment, and availability and delivery time.

Metering. Most utility companies will insist on metering the various tenants directly, and group meter stations must be installed by the developer in the service corridors. If, as at Northland Shopping Center in Detroit, the utility company is willing and where state regulations permit, the developer may elect to purchase electric power at a wholesale rate and sub-meter to tenants at the prevailing retail rate. The cost of transformers and distribution must be related to the potential profits for the developer.

Electric Service. The power company will normally supply energy at high voltage, possibly 16,500 volts to one or more transformer locations. During preliminary negotiations, it is advantageous to insist on at least two sources of high voltage supply, preferably originating at two separate substations.

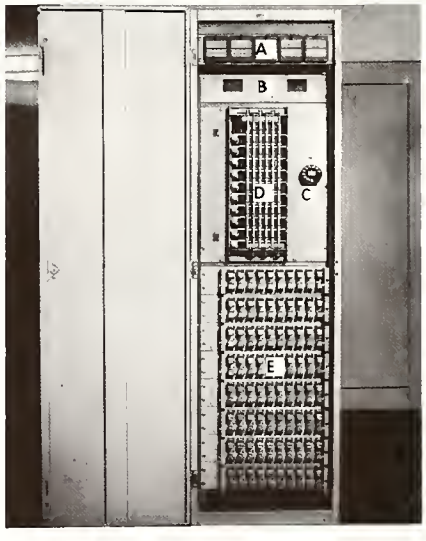
The power company will install transformers and protective switchgear in vaults constructed by the developer, and these will normally be located underground in the parking areas. Occasionally, the utility company is willing to install one bank of transformers in a penthouse, thereby providing service adjacent to the mechanical equipment room so that 480-volt power is readily available for motor loads. Secondary switchgear adjacent to the transformer vaults is installed by the developer.

Distribution. Sound engineering practices call for distribution of large amounts of power at the highest practical voltage. All distribution within the project will be installed at the developer's expense regardless of distribution voltage, or location or type of metering. During the planning of the center, an economical balance must be achieved between many points of distribution with a reduction of distribution facilities and few points of distribution with much heavier distribution lines. Voltages may be 4160 with 480 and/or 120 volt transformers located in unit substations, or basic distribution may be at 480-277 volts; then motors and parking lot lighting may be supplied directly at 480 volts, some lighting at 277 volts, and some lighting loads at 120 volts through air-cooled transformers.

Lighting. Lighting level requirements for commercial establishments are continually increasing. Adequate space capacity and flexibility should be incorporated into the tenant metering substations. Normally, these substations are sized prior to the completion of leasing activity and main disconnect switches must be selected on the basis of

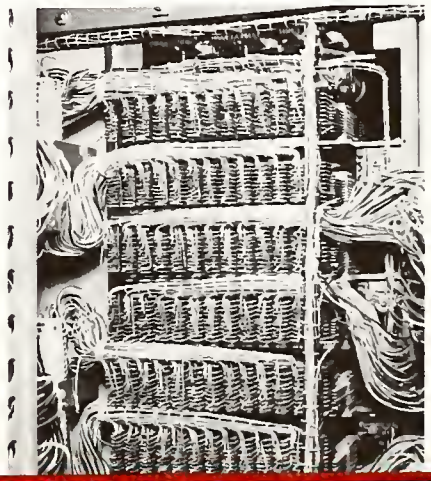
Master control panel in Southdale Center, near Minneapolis.
Architects: Victor Gruen Associates
Photograph: Anthony Lane

A. Motor Load Center: circuit breakers for air conditioning, deep well pumps, elevators, escalators, etc.; B. Pump Control Cubicle: starts, stops and controls pressures of air conditioning system and domestic water pumps; C. Data Handling Cubicle: gathers information electronically from 75 pressure and flow points throughout air conditioning system; D. Data Handling Typewriter: automatically types the gathered data handling information every ½ hour and duplicates information on punched tape; E. Air Conditioning Programmer: automatically programs pre-established cycles of operation when initiated manually or by thermostats; F. Programmer Jack Panel, on which cycles are arranged.



PROGRAMMER CUBICLE

A. Visual Annunciators
B. Visual Cycle Read Out
C. Manual Cycle Dial
D. Crossbar Switch
E. Relays



Reverse side of cross bar switch located in programmer cubicle, showing intricate wiring of the 1200 terminals.

prior experience. Substations are a suitable point at which the owner's work can be terminated, and he may supply an allowance to the tenant to cover costs of tenant's wiring and panel boards. Lighting fixtures are normally installed by the tenant at the tenant's expense.

A competitive lighting situation may exist between tenants; the developer, in lighting the arcades and malls, should not add to this problem; on the contrary, light levels for pedestrian areas should be not more than 10 foot-candles in order not to compete with show windows, and an average of one foot-candle maintained in the parking lot will be adequate. Economic studies of parking lot lighting have indicated that a few clusters of color-corrected mercury vapor lamps mounted on 60-foot standards provide the same illumination and involve the same capital cost as a system utilizing a forest of 30-foot standards. The taller standards are definitely more desirable in terms of appearance, parking lot layout and area identification.

State and local regulations may require emergency standby lighting facilities for corridors, exits, and firestairs. Specially designed lighting accent fixtures, illumination of planting areas, shopping center sign and symbol identification, and floodlighting of buildings are necessary to complete the developer's lighting installation. The huge areas involved and the distances to be traveled, particularly in a multi-level scheme, make localized switching impractical, and a system of remote low voltage lighting control is desirable.

Lighting standard with cluster of mercury vapor lamps. Valley Fair Center, San Jose, California. Architects: Victor Gruen Associates
Photograph: Gordon Sommers

Communications. Of growing importance in the field of shopping center design is the installation of low voltage communication systems. The developer of what amounts to the equivalent of the entire downtown of a small city finds that his 100-acre suburban location is completely lacking in the equivalent fire and police protection that would normally be found downtown. Although some suburban communities might be induced to patrol a parking lot once or twice during the night, either complete watchman service must be provided or modern developments in detection systems must be installed.

The best example of complete communications coverage may be found at Southdale near Minneapolis, and this installation could well serve as a check list for planning purposes.

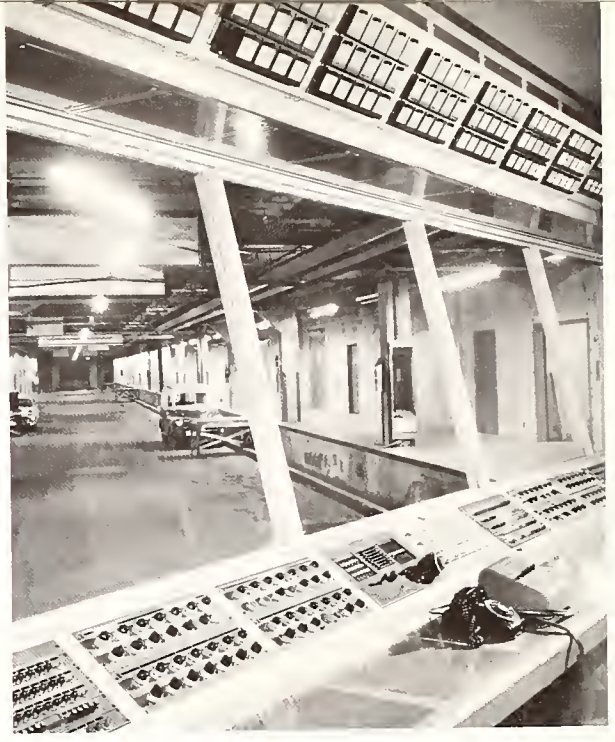
At a point where the underground truck road makes a 90° turn, a glass-enclosed protection office has been installed which provides visual control of the entire truck area. This office is manned 24 hours a day, and serves as a terminal point of all low voltage devices. A "dead man" feature has been incorporated so that in case of lack of response to a given alarm signal, the alarm will then be remoted to the local police station. At all times, a second protection officer is making the rounds of the center and is in constant communication with the man in the protection office.

All lights are controlled from the protection office by means of contactors in the panel boards, and it is possible for the protection officer to illuminate only the necessary corridors if a tenant should want to visit the premises after business hours. Flexibility is provided in terms of alternative switching possibilities for the parking lot luminaries. Certain motor controls, such as the truck tunnel doors, irrigation water pumps, air-conditioning equipment, etc., are switched from the communications panel board. In addition to the control of lighting and equipment, the communications office is the point of origin of a paging system and a programmed music system with speakers provided throughout the public areas of the center.

A central TV master antenna is provided to prevent the wild growth of individual antennas on all buildings. Connections to the master antenna are paid for by the tenants. By means of a telephone switchboard, facilities are provided to relay alarms to the local police stations, the local fire station, and to service companies with whom maintenance contracts have been executed.

The telephone switchboard receives calls from red emergency phones located strategically throughout the center. Anyone at Southdale, customer or employee, may pick up a red phone to report an emergency, and the protection officer in the office can dispatch a member of the Southdale protection force or may communicate with any appropriate agency.

At night when the center is closed, the speaker system for paging and music may be operated in reverse so that the protection officer may listen in for sounds originating in the speaker area. Signaling devices located in the truck tunnel entrance ramp announce the progressive movement of an incoming truck and, by means of an intercom, the officer can communicate with the truck driver, or anyone arriving, to request identification, etc., before opening the tunnel doors.



Control panels in protection office overlooking part of the underground truck road, Southdale near Minneapolis.
Architects: Victor Gruen Associates
Photograph: Warren Reynolds, Infinity Inc.

All of the alarm systems, including intrusion, fire protection and mechanical equipment alarms, terminate in an illuminated panel board in the protection office. A complete network of low voltage wiring provides 100 per cent coverage for all Southdale doors. A combination of rate-of-rise detectors and "fire eye" (a lead sulfide cell sensitive to modulating light) replaces a conventional sprinkler system. The electronic data-handling equipment for the air-conditioning and heating system records its information on an electric typewriter located in the protection office, and specific instructions related to alarms are read out directly to the protection officer. All alarms are automatically recorded on tape, and the action taken in response is also recorded. After the center is closed, and all doors are locked, anyone entering or leaving the center must do so through the truck tunnel under the surveillance of the protection officer (who, incidentally, has a Doberman Pinscher beside him at all times.)

PART II–CHAPTER 10

Leasing the Shopping Center

In the Introduction, the authors pointed out that practically every concept relating to shopping center development would justify a book in itself. In dealing with the leasing of a shopping center, there are obviously many matters in which developers and other readers would be interested, but which are essentially related to management aspects rather than the concept of planning.

The authors therefore had to determine which matters were significant in respect to the planning operation as such, and which were matters of leasing techniques. For instance, the order in which tenants should be sought and related matters are essentially part of a "leasing manual" which in itself could not be accommodated within the confines of the text.

However, developers will find that the problem of shopping center leasing is so directly tied to the financing of the center that it is impossible to deal with one without automatically considering the other. Consequently, in attempting to deal with the leasing problem as it relates to the total planning concept, it is necessary, in the authors' opinion, to deal first with the effect of financing requirements on leasing as a background.

Experience gleaned over the past ten years in every phase of shopping center development and management has taught the developer, the tenant, and the mortgagee, which factors will protect and enhance his own particular position in a new project. Developers now have better guides in selecting tenants who will be able to maintain satisfactory volume levels; experienced tenants are better able to evaluate new locations; and mortgagees attempt to establish more intelligently the criteria by which new financing applications should be appraised.

The basic aim of the developer is to select and obtain at satisfactory rents those tenants who, collectively, will provide the greatest possible customer satisfaction over a period of years and consequently, the highest volume of sales for his project.

Theoretically, this should also be the basis upon which the mortgagee should judge the merits of the financing. Unfortunately, though, experience has not yet provided a sufficiently dependable guide to the selection process or to the forecasting of revenue over a period of years, to justify the mortgagee in making loans for the major portion of the capital cost of the project on the same criteria basis that the developer uses in tenant selection. The mortgage lender is usually in the position of trustee for policy holders' and other persons' funds. He generally requests that reasonably long term leases be available, executed by tenants of prime credit, to provide guaranteed rentals sufficient to cover a large part if not all of the expenses of the project, the interest requirements, and possibly the principal requirements of the loan. There is no set formula, and requirements in this respect will vary, depending upon the lender, the borrower, the market at the time, and the lender's judgment of the facts of the case including the amount of the loan, the strength of the center, the quality of the planning and the indicated rent scale for the leases negotiated up to the point of the financing negotiations.

Under most circumstances, in a project with average strength of location and quality of planning, this requirement is likely to mean the renting of from 55-75% of the floor area to tenants of strong credit.

These lending agency stipulations create problems of tenant selection for project developers and have a tendency

to place certain bargaining advantages into the hands of tenants of strong credit. The renting problem therefore becomes one of finding the most effective compromise between relatively rigid requirements: the proportion of store area to be rented to tenants of high credit, and the desire to achieve sound merchandising planning by selecting tenants for their merchandising ability and customer acceptance. The problem is rarely a simple one.

Many developers, especially in the case of intermediate centers, have met the problem by renting their projects very largely to high credit tenants. The results have not always been satisfactory either to owner or mortgagee, as these tenants have frequently been unable to develop the volumes of business which they themselves anticipated. Where such unsatisfactory volumes result, the financing institutions have achieved protection, at least, for their policy holders and beneficiaries through guaranteed rents from tenants of high credit, even though the loan, in retrospect, may not be considered a good one. With such examples of poor operating results in mind, the mortgagees often feel even more compelled to shape their future policy in the direction of requiring adequate rents from tenants able to weather the critical periods in the development of weak locations.

The developer therefore faces the fundamental and continuing problem of reconciling the long-term welfare of the project with the needs of financing, especially when it becomes a question of choice between chains with high credit rating and local merchants. We do not wish to imply in any sense that the chains do not merchandise their stores competitively. In many cases they perform superlatively well, with volumes consistently in excess of that produced by local competitive tenants. In these circumstances the developer is in a very fortunate position. In other cases, the developer may be forced to rent to high-credit tenants whose acceptance may not be as great as that of other merchants with lower credit ratings.

Furthermore, the shopping pattern in any one city may indicate that specific tenants or tenant types having the greatest customer acceptance are not available for a new shopping center project. The preferred tenant, whether of high or lower credit rating, may not be able to take space because the shopping center is located in the vicinity of one of his own branch stores.

This may also happen: Although the store "personality" developed by certain individual merchants has achieved the same recognition locally that many of the large chains have on a national basis, this local store operator may not be convinced that it would be desirable, or may not be equipped with the necessary financial and executive resources, to adopt a policy of expansion that would permit the development of a unit in the proposed center. In the past, mortgagees have been willing, and still are in many cases, to lend on prime retail property located in the 100% portion of the central retail district regardless of the tenancy or length of lease. This means that many excellent locations in the central retail district are occupied by tenants of high customer acceptance but with either moderate credit or with resources inadequate for expansion.

Theoretically, if the owner were not controlled to a greater or lesser extent by the limitations imposed by the realities of financing, he would determine by one sort of analysis or another the tenants in each category who were most capable of converting the potential volume of business in that category to cash sales in the shopping center project. He would then seek out those particular tenants and would be influenced in his decision to execute leases with them by the compromise that might be involved between their probable productivity over a period of years and the rental terms he might be able to negotiate with them. Generally speaking, the national chains, on account of their experience and demonstrated ability, as well as the preferential position which they occupy due to the mortgagee's attitude, are characteristically capable of bargaining for somewhat lower rents in respect to both guaranteed rent and percentage rents. However, some local operators, depending on their demonstrated ability to produce sales for the owner of the real estate in which their branch stores are located, in communities where they have developed branch locations in the past, may be able to negotiate better terms for both guaranteed and percentage rent than the national chains.

With the national chains aware of the strength of their bargaining position it is quite possible that a renting program involving them, which would be successful in terms of the mortgagee's requirements, would not produce sufficient rent to make the owner's investment attractive (unless the shopping center owner acts upon a clear idea of the relationship between his capital and operating costs and the income implications of his leases in both guaranteed and percentage rent). It is also possible that a center rented in this fashion would have insufficient customer appeal to make the location successful as a long-term merchandising vehicle for the tenants.

Within this apparent conflict of conditions the developer must attempt to reach the particular solution which best suits his project, taking all circumstances into consideration. The selection of tenants in such a way as to harmonize the requirements for financing purposes with the creation of merchandise appeal that will guarantee the long term approval of the customers becomes one of the most critical problems of the shopping center owner.

Every effort must be made to provide a complete shopping experience. It is not enough that a customer should be able to find each desired item of merchandise in some particular store. No experienced woman shopper will ever be satisfied with shopping in an area where there is only one outlet handling a certain type of merchandise, as long as she may have available to her, in the older shopping areas, whether downtown or in suburban districts, many more outlets offering the same type of merchandise in the widest possible selection of style, quality, and price. This is

particularly applicable in the apparel fields and almost equally so in home furnishings and many other specialty lines. Exceptions to this general situation are found in stores offering high quality merchandise and those offering special bargain or "discount" prices. In both cases, such stores are frequently found in relatively isolated locations.

The problem of the shopping center developer in his renting process is, therefore, to select a group of tenants which taken together will provide: Complete merchandise coverage; competitive shopping for selection of merchandise, quality and price; sufficient competition so that the quality of service will be at least on a par with that available to the shopper in any equally convenient shopping district. An opportunity to create a "shopping atmosphere". Leases of a quality that will permit the financing he requires. Rents under such leases adequate for a satisfactory investment return on his project.

The renting process must evaluate each tenant on these qualities. Inspection of the operations of the prospective tenant in the city in which the shopping center is located may produce a useful, although not necessarily dependable guide.

A—Rental Terms

The following notes indicate in a general way the rental terms and probable productivity levels which may be used for regional shopping center planning purposes. The relative terms are generally applicable to all centers except that in the smaller centers the rents are not likely to be as high, particularly with respect to supermarkets, junior department stores, and variety stores, which in these smaller centers take on the characteristics of the principal tenant and are sought for promotional purposes at generally lower rent levels. The location of a project, regardless of size, exercises a strong influence on rental terms, as it does on every other phase of shopping center planning. The rental terms negotiated for a particular center may reflect variations unique to the particular community in which it is located and, as such, may be useful as general background information but not be valid for planning purposes in other projects.

Due to the fact that shopping center planning is still in the early development stage, changes in rent level are occurring continuously. Recent experience indicates a willingness on the part of national chain stores which, in the past, have insisted on negotiating low rental terms in many projects, to pay the higher rentals necessary to support quality construction in projects where they are satisfied with the location and the planning concept. The rents quoted here reflect past experience, and may be lower than those currently being negotiated by national chain tenants for locations in choice shopping centers.

The tenant types available (see Part I, Chapter 5) are approximately 140 in number. The following comments are limited to significant information in connection with the broad categories; for more complete information, reference should be made to guaranteed and percentage rent listings in publications of the National Association of Real Estate Boards, and to data available from competent real estate advisors with knowledge of shopping center and local conditions.

1) Department Store. The department store is, of course, the major tenant in the regional shopping center and the signing of the department store lease represents an important milestone in its development.

Because of its importance to the project, the department store is generally able to negotiate favorable rental terms. Guaranteed rents in gross leases which also contain percentage rent terms typically range from a token amount of $1.00 in some cases to $1.50 per square foot in stronger locations, and more in exceptional cases.

Percentage rents usually range between 2% and 3% of sales. Frequently the percentage structure allows a lower percentage as sales increase. A typical example might be 3% on sales up to $45 per square foot of total rental area, 2½% on the next $20 per square foot of sales volume, then decreasing to 2% on sales in excess of $65 per square foot.

Department store productivity varies widely, but an aggressively merchandised suburban branch in a strong shopping center can produce per square foot sales volumes at least equal to those of downtown units in the same community.

Experience has shown that approximately three to five years may be required before the completed center is successful in capturing its share of the retail potential. The same is true of the department store tenant, although the period of time required for the department store to attain a maximum productivity level appears to depend on the store size. If the trade area is clearly able to support a department store of the size planned, it appears that a large branch unit carrying full lines will attain substantial productivity much sooner than a store of limited size.

2) Junior Department Store. The junior department store is often a second strong tenant in regional shopping centers and is also found as the major tenant in the smaller intermediate developments. This store type generally can be defined as a less-than-full-line unit of a size ranging from, say, 30,000 to 80,000 square feet, and operates as either the so-called "conventional" or the "variety" type, as determined by the general mode of operation and merchandise carried. The "conventional" junior department store carries a limited amount of hard goods and generally a wide selection of the other usual department store merchandise. On the other hand, the "variety" type features a definite emphasis on merchandise formerly identified with the five-and-ten cent store operation, with soft goods and other normal department store merchandise in a secondary position.

Again, because of the importance of the junior department store to the project, this tenant is usually able to

negotiate favorable rental terms although not to the same degree as the major department store. Guaranteed rents in gross leases, which also contain percentage rent terms, typically range from $.75 per square foot to $1.50 per square foot depending mainly upon the location of the project.

Percentage rents usually range between 2½% and 5% of sales depending partly on the type of store. One chain has been successful in obtaining locations on a completely open-end basis with no minimum guarantee. As in department store leases, there is frequently an allowance for a decreasing percentage as sales increase. The example noted previously for the department store would also serve in this instance.

Junior department store productivity also varies widely, ranging from about $40 to $80 per square foot in the conventional type of unit and from $25 to $60 per square foot in the variety-oriented unit.

The time required for the junior store to attain full operating levels is generally somewhat longer than the major department store, apparently due partly to the limited size of these units.

3) Supermarkets. The supermarket is an important tenant for a regional center because it contributes to the completeness of the shopping facilities, and in many cases, being a unit of a national or strong local chain, may qualify as a prime credit tenant for financing purposes.

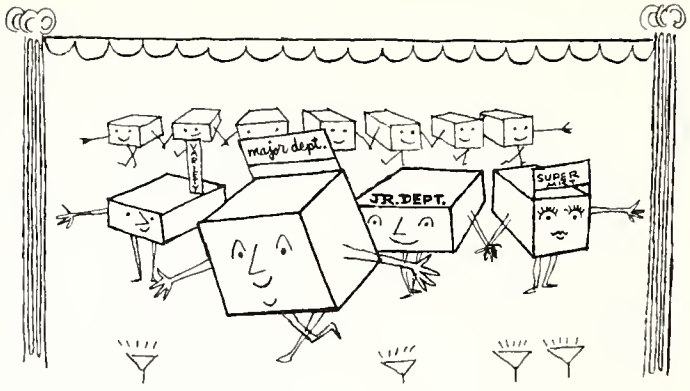
Typical supermarket guaranteed rents vary from about $1.25 to $2 per square foot. Percentage rents usually range between 1% and 2% and occasionally will step down as sales volumes increase. Because the supermarket is even more important to the intermediate center, and especially so to the neighborhood center, rental terms in these centers tend to be more favorable to the tenant.

While productivity levels vary, as with any other tenant type, $90 to $150 per square foot of total rentable area is typical for a strong supermarket in a well located shopping center.

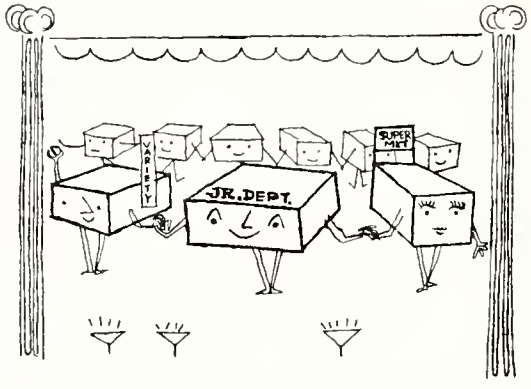
Certain planners and developers have questioned whether the supermarket contributes sufficiently to the regional center to justify its inclusion, since its customers are generally seeking convenience goods and may not be in the mood for shopping at stores offering comparison goods. The supermarket's comparatively high demand for parking facil ities is also cited as a possible detriment to the center.

However, recent studies have indicated that the super market does function as a primary traffic generator in at tracting customers to the center, and when properly located is useful in generating intracenter traffic. The possibility of having a second supermarket is discussed in Part I Chapter 5.

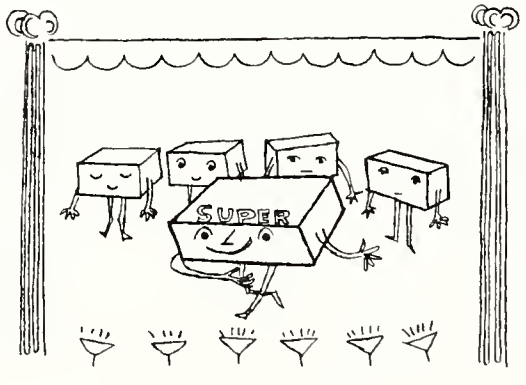
Because the supermarket is more dependent upon adequate adjacent parking than upon foot traffic created by other tenants, it is usually situated at the outer edge of the building cluster. If so located, its customers have direct



In the regional shopping center, the major department store is the star of the show.



In the intermediate center, the junior department store shares the limelight with the variety store and the supermarket.



In the neighborhood shopping center, the supermarket is the star of the show.

access to the parking lot and at the same time, will measurably increase foot traffic in the center.

The size of the supermarket typically ranges from 15,000 to more than 35,000 square feet.

4) Other Food Stores. The small specialty food stores, candy stores, bakeries, delicatessens, meat, fish and produce markets, and the like are a valuable asset in the shopping center. If effectively merchandised, they can add to the shopping atmosphere and in addition, are able to develop very satisfactory volumes and rents. Such stores may range in size from 500 or 600 to perhaps 2,000 square feet. In strong projects they pay as much as $5 to $6 per square foot guaranteed rent, and percentage rents of 6% to 10% for candy and nut stores and 5% to 7% of sales for other types.

5) Variety Stores. The variety store, or stores, typically occupy from 4% to 9% of the total retail area of the regional shopping center. Store sizes range from about 20,000 to 40,000 square feet.

While the sales volumes per square foot produced by variety stores have, in some instances, been disappointingly low, due primarily to excessive store area of this type in the particular shopping center, they are desirable and necessary; desirable because they contribute to the completeness of the shopping facilities and necessary because they usually add to the roster of national chains which qualify for financing purposes.

In the smaller centers they may be the major tenant around which the center is organized, in which case the rent terms will be more favorable to them.

Depending on the quality of the location, guaranteed rent varies from $1 to $2 per square foot, and percentage rent from 3% to 6% of sales.

6) Apparel Stores. In this category every effort should be made to provide comparison shopping.

The large, women's specialty store featuring quality apparel and the large, quality men's wear store are important members of the regional center. They are usually local or regional in character. The number of such stores is very limited, and frequently a developer is unable to find even one that is available and interested in expanding into a shopping center location. Due to their scarcity, these tenants usually occupy a superior negotiating position and are able to bargain for more favorable rent terms than the smaller apparel stores, and occasionally obtain concessions in the form of extra finishing work and contributions to fixturing from the developer.

Even though these tenants are not national chains, they frequently qualify as prime credit tenants for financing purposes. Guaranteed rents may not exceed $2 per square foot average for all rentable space, and percentage rent rarely reaches 5%.

Rents paid by the smaller apparel stores vary, with national chains occupying a preferred position in bargaining.

Store size is another significant factor, the proportionately smaller store normally paying a higher guaranteed rent per square foot.

In this category, guaranteed rent falls within a range of $2.50 and $6 per square foot with the latter figure applying to an extremely small store in a prime location. Typical percentage rents range from a high of 10% in small specialty stores, such as millinery, down to 4% which may be paid by national stores carrying moderately priced women's wear. The local tenant handling men's and women's wear typically pays between 5% and 7% on sales.

The national chain shoe store tenant may occupy an area of 1,500 to 8,000 square feet. The guaranteed rent level ranges from $2.25 to $4.50 per square foot, with percentage rents of 5% to 7%.

The children's wear store is generally operated by a local tenant, with guaranteed rents commensurate with those paid by other apparel stores of a comparable size and location in the center and with percentage rent of approximately 6%. The aggregate sales volumes produced by apparel stores in a well located regional shopping center should average approximately $65 per square foot of total rentable area, but productivity can range from $30 to $150 per square foot depending largely on the merchandising policy and skill of the tenant.

7) Hardware Stores. These vary in size from less than 5,000 square feet to approximately 10,000 square feet, with rent of about $1.75 or less per square foot guaranteed against percentage rent of 4% or 5%.

The paint and wallpaper store typically occupies less area than the conventional hardware store, usually less than 3,000 square feet. It will pay a higher guaranteed rent—between $2.50 and $3.00 per square foot and percentage rent of approximately 6%.

Stores selling this type of merchandise should in average cases reach sales volumes of about $45 per square foot.

8) Furniture and Home Furnishings Stores. The furniture store may be less able to make effective use of a shopping center location than other store types since furniture purchases are made infrequently by the average customer, and such purchases are usually the specific aim of a long-planned shopping trip during which the customer is willing to travel considerable distances to visit several stores in an effort to obtain either the precise article or the most favorable price and credit terms. In addition, this type of tenant requires considerable storage and show room area, and may be unable to justify typical shopping center occupancy costs for such a large floor area on the basis of the anticipated sales volumes.

One satisfactory solution worked out in large centers is to locate the furniture store space with the main selling area in a secondary location, possibly in the basement, on the mezzanine, or on the second floor, with only a small

lobby and limited display room in which to receive customers on the main merchandising level.

The range of size for conventional furniture stores in shopping centers is very great—from a few hundred square feet to possibly 40,000 square feet. Guaranteed rent corresponds to the scale for other stores in the same center, when the proportion of basement or other secondary space is taken into consideration, with percentage rents of from 4% to approximately 6%.

Smaller stores featuring a segment of home furnishings merchandise such as floor coverings, draperies and curtains, radio, and major and minor appliances, range in size from less than 1,000 square feet to approximately 7,000 square feet. Guaranteed rents vary within an extremely wide range, controlled by store size, location and the type of merchandise handled. Percentage rents also range from approximately 5% to as high as 10% in certain categories of specialty furniture merchandise. Sales volumes will range from $30 to $70 per square foot.

9) Eating and Drinking Facilities. In the shopping center these facilities fall into three broad categories: the lunch counter or coffee shop operation, the cafeteria type operation and what might be termed the quality restaurant. The operating characteristics and the customer traffic requirements are completely dissimilar.

The lunch counter type operation may be expected to derive its business from the customers and employees of the various stores during the hours the center is open for business. The area occupied by this type of tenant will range from less than 1,000 square feet to more than 5,000 square feet. Probably the most significant determinant of the size is the type of eating facility operated. Variations may include anything from the stand-up coffee bar to a restaurant large enough to offer table service to family groups. The cafeteria type serves the same market, but occupies larger average space. The range of guaranteed rents paid by this type of tenant varies greatly depending on location, size and character. Percentage rent ranges from 4% to more than 7%.

The quality restaurant is a valuable asset to a shopping center. While the label "quality restaurant" is an arbitrary one, a reasonable definition of it for shopping center classification would be a place to eat with pleasant atmosphere and decor, and white tablecloths.

There has been some reluctance on the part of quality restaurant operators to take shopping center locations, as it is generally believed that the quality restaurant requires a location which will provide highway traffic in addition to that generated by the shopping center. Also, it is important for the quality restaurant to remain open at times when the center is not open for business, possibly Saturday evenings and Sundays. A satisfactory solution has been found in a few regional shopping centers by locating the quality restaurant in an individual building readily reached from the parking lot and highway, but also intimately connected with the pedestrian area.

The guaranteed rent varies, depending on the location and demonstrated ability of the tenant, but will range from $1.75 to $3.00 per square foot in most cases; percentage rent from 4% to 6% on the sales volume derived from meals. Revenue produced from other sales, such as liquor, bakery goods, candies, or frozen foods, depending on the tenant's operation, may be isolated and a different percentage rent applied to such sales. In this particular category both guaranteed and percentage rent terms are influenced greatly by the negotiated division of capital expenditure between developer and tenant.

The average sales volume of eating and drinking facilities within a shopping center should fall between $45 and $70 per square foot, but with higher volumes possible in well managed operations. While eating facilities in drug and variety stores, and in the main department store, are not part of this tenant classification, they should be taken into consideration in planning the type and quantity of total eating facilities required in the center.

10) Other Retail Stores. Gift shops, jewelry stores, hobby shops, sporting goods, luggage stores, music stores, and camera shops are among the stores in this classification. These stores are usually small and operated by local tenants, with the possible exception of the credit jewelry store which is sometimes operated by a regional chain.

A high degree of selectivity and planning effort on the part of the developer in choosing these tenants can result in a sprinkling of attractive small shops, which will greatly enhance the customer appeal of the entire center. These tenants are also a valuable source of revenue to the center, as they are capable of paying guaranteed and percentage rent per square foot in excess of that paid by most of the larger stores and under capable management will produce a satisfactory revenue to the owner, notwithstanding the characteristically higher cost per square foot of finishing space for use by this type of tenant.

11) Services. Although service shops in a regional center typically occupy a small total area, usually not much more than 2% of the rentable area, they are a very important member of the shopping center family of tenants. In addition to contributing to the completeness of the center, they are capable of generating substantial customer traffic within it.

Customers are attracted to a service shop cluster, even if located in relatively out-of-the-way areas such as lower level arcade space, although the entrance to this general location should be from the main shopping core.

Among the tenants in this category are the barber shop, beauty shop, reducing salon, shoe repair and general repair shop, and other similar types.

Space devoted to service shops is in small unit areas, more costly than average to complete, and yielding correspondingly high guaranteed rent on a square foot basis; percent-

age rents range up to 10% or more. For reference to a listing of such service types, see Part I, Chapter 5.

12) Unusual Shopping Center Tenant Types. Opportunities for creating additional pedestrian traffic and producing a more interesting and varied atmosphere lie in the careful choice of a few tenant types that are different from the usual retail tenant. They may attract what might be considered, initially, non-shopper traffic, but even so, they function in making more people aware of the center's existence and serving the total community requirements.

Among the types that fall into this category are libraries, recreational facilities, medical and professional offices, utility offices, dance studios, child care facilities, and institutional tenants, such as banks and post offices, savings and loan offices, and auditorium facilities.

13) Vending Machines, Public Telephones, Etc. These are examples of miscellaneous automatic facilities that will benefit any center and can be placed, by imaginative planning, where they will provide convenience to the customer and profit to the owner.

B—The Shopping Center Lease

The provisions of the shopping center lease establish the financial characteristics of the agreement and the basis for the working relationship between the tenants and the developer; they also set forth additional obligations of each party. Furthermore, the lease contains the framework for central control of the merchandising practices of the tenants to insure operation of the center as a retail entity and to preserve its character and appearance through the years.

With these qualifications in mind, the following outline of points to be covered in the regional shopping center lease has been compiled. Leases for smaller projects are likely to be somewhat shorter and simpler in form, but consideration should be given by the developer and his attorney to the same points when preparing them. Each provision in the outline has been expanded to include a suggestion as to the manner in which it can be covered and some of the alternatives that have proved to be acceptable. It should be understood, however, that in most centers there are tenants who have been successful in achieving modification of, or deletions from, the standard tenant lease used by the shopping center, due in part to special requirements of their operations, a superior bargaining position and/or negotiating skill. (The department store or other key tenant lease is generally a special document embodying many of the following points as well as others. Because of the special nature of this document, the developer should obtain competent and experienced legal advice in its preparation.)

The comments in this section admittedly favor the developer's position. This is in recognition of the necessity of providing shopping center management with sufficient latitude to act in a speedy and effective manner should the welfare of the center be jeopardized by malpractice or default of the tenants.

It is important that the reader bear in mind that the objective of the authors is to deal with the shopping center lease in terms of planning concepts, though the preparation and terms of the lease itself are essentially in the realm of real estate and legal practice. This discussion, therefore, is not intended as a "leasing manual" nor a comprehensive set of instructions to a rental agent, who will be guided by his experience and the practices in real estate. Neither is it a substitute for competent legal talent, nor a discussion of the legal implications of the typical lease form or suggestion as to wording or content of any particular document. It is rather intended to be an expression of the extent to which the lease document, which establishes the relationship between the tenant and the developer, must be taken into consideration in the entire planning operation.

No attempt has been made to use legal phraseology or to deal with points that may involve local legislation. Obviously the drafting of the actual lease document is in the attorney's field.

The provisions outlined herein represent a composite of the experience gained in many projects now in operation and in some cases, therefore, may be more lengthy and restrictive in favor of the owner than any one lease now in use. In other words, most shopping center leases now in operation do not contain all these provisions, and still others contain provisions more favorable to either the developer or the tenants. Individual circumstances, such as peculiarities in location, leasing climate, management philosophy and organization, and a number of other variables determine the content of any one lease. We have chosen typical provisions which are applicable where there is strong central management of the project and which at the present time appear to be both necessary and workable in a number of operating shopping centers.

1) Premises and Terms. This section normally includes the grant of use of the premises to the tenant. The premises are identified as a portion of the shopping center which, in turn, is identified by a property description. Usually both the premises and the center are further identified by exhibits attached to the lease, consisting of drawings of the leased space and of the site plan of the center. The use of exterior walls (other than store fronts) and the roof is reserved to the developer.

The lease term is usually set forth as a specified number of months or years. A separate clause provides for the commencement of the term and gives the developer control

*There are certain elements that are largely a matter of negotiating technique between developer and tenant. Since this is not intended to be a leasing manual, only those elements of leasing technique that are important in dealing with planning and architectural concepts have been brought into the text, such as the allowance system and the method of dealing with utilities.

over the opening date of each tenant. This clause requires the tenant—upon notification by the developer that the premises are ready—to finish, fixture, stock the premises, open for business and commence the payment of rent within a stipulated period of time. The time allowed to complete the tenant's work ranges from 30 to 90 days, depending in part on whether responsibility for finishing the space is to be undertaken by the landlord or tenant. A provision for annualizing the lease and establishing a common lease year for all tenants may be included in this section. A fiscal year for the shopping center may be established upon which the schedule for tenant sales reports and developer's audit privileges are based.

2) Construction and Acceptance of Premises. The provisions of this section are usually integrated with an attachment to the lease, identified as an exhibit, which sets forth the developer and tenant work responsibilities, the architectural and construction specifications, and procedures for developer's approval of the tenant's plans and work. This attachment states in detail architectural and construction standards concerning store fronts, and restrictions on the location, size and character of signs (see Part II, Chapter 8).

It is frequent practice to require the tenant to furnish a bond or other security, guaranteeing performance of his work in the premises.

As mentioned above, the time allowed for the tenant work in the premises is 30 to 90 days. The work referred to here falls into two categories: that normally deemed to be the developer's responsibility, and that traditionally considered to be the responsibility of the tenant. Several factors influence the choice of arrangement for accomplishing the finish work, but generally one of the following four methods, or variations thereof, of allocating the work and financial responsibility have been used in shopping centers:

a) The developer assumes the entire responsibility for furnishing a completely finished store building to the tenant's own specifications, or to the specifications as negotiated. These are usually known as "turn-key" specifications.

b) In greatest contrast to the arrangement above, is the one whereby the developer provides what is essentially only a bare shell. The tenant then assumes responsibility for completing the shell at his own cost. Such arrangements have been known for many years in the remodeling of downtown store locations, but have been rather infrequently used in shopping centers with new construction.

c) Division of responsibility between tenant and developer is set forth in terms of specific items of construction. This has been a common method in shopping center lease negotiations and specifications and involves setting down in detail each work item to be performed. In general, the following illustrates a typical division of such work between landlord and tenant:

Landlord's Work: Standard store fronts, standard entrance doors, plastered party walls, plastered ceilings, interior prime coat of paint, utilities brought to premises, and heating facilities.

Tenant's Work: Electrical fixtures, interior partitions, floor coverings, interior painting and decorating, display windows, plumbing fixtures, signs, air-conditioning, and mechanical conveyors.

Usually, it is intended that the financial responsibility for the work coincide with the work items involved. However, where the cost of one party's work is increased at the request of the other party (because of style or quality, for example), there is usually a "back charge" made to reimburse the party providing the work with the higher specifications, usually the developer.

d) Division of responsibility for finishing of the tenant's space is made on a financial, or dollar, allocation rather than on the basis of itemized work specifications. This general method, which has been used in downtown retail locations for many years, is often called "the allowance system" as applied to its use in shopping centers in recent years.

Under the allowance system, the financial responsibility for the work of finishing the tenant's space is divided by means of allowances according to cost estimates prepared on the basis of actual developer and tenant finishing specifications. The physical responsibility for work completion and contracting is undertaken by the tenant with his own contractor, thereby permitting a complete and coordinated finishing job under the tenant's supervision.

In the typical allowance system, the landlord would supply the structural shell, public spaces and similar general construction items, plus floors ready for tenant's floor covering, plus the party walls, and heat and other utilities brought to the premises. The tenant would then assume the responsibility for contracting other interior work, subject to approval of landlord's architect, in consideration of the landlord's cash allowance which is provided to reimburse the tenant for the cost of the landlord's portion of finishing the tenant's space.

In many cases where the allowance system is used, provision is made, in the case of the smaller tenants not having architectural or construction supervision experience, for the tenant to be provided with a standard store completed by the landlord as per the specifications to which the applicable allowance system has been keyed.

These various ways of handling the work of finishing the premises are presented here, without going into the relative merits or disadvantages of each, only to point up the necessity for making a choice and for including in the lease agreement such controls as are necessary to implement the method chosen.

These comments relate only to the standard lease of the center and do not take into account the inevitable special concessions to strong tenants that are often reflected in the form of extra work by the developer. In referring to work

"usually" done by either party an attempt is made to simplify this presentation of alternatives by recognition of custom in the shopping center field. We believe that as experience in the shopping center field grows, the practice common in retail real estate leasing will prevail, in which all negotiations for rent and the condition of the premises on delivery will depend entirely on the circumstances in the individual case.

Escape options for one or both parties are sometimes included. Generally the clause allows for cancellations within a given period of time if construction is not begun or if the premises are not delivered to the tenant by a specified date. An escape clause for the developer is usually included, in case circumstances beyond his control such as availability of financing or change in cost relationships, make the project impractical, in which case he is required to notify the tenant by a specified date.

The lease will include regulations reflecting the agreement between owner and tenant relating to the placement and character of signs, the design and construction quality of all work to be done by the tenant.

3) Rent. This section normally includes provisions that establish the amount of guaranteed rent to be paid, a formula for computing percentage rent, schedules for sales reports by the tenant, and the conditions and method of payment.

Usually the lease requires that the guaranteed rent be paid monthly, in advance. Percentage rent, determined by the sales volume of the tenant, is paid monthly, quarterly, or sometimes semi-annually, and is usually based on monthly sales reports by the tenant with adjustments made at the close of each lease year. Leases usually require that the annual sales report be prepared by an independent certified accountant approved by the developer.

Developer audit privileges extending for a specified period of time after each lease year are usually included and the tenant is usually required to maintain daily sales records, copies of tax returns and other evidence of the operation of his business and to make this information available to the owner for examination or audit.

Tenants may ask to have the revenue from sales of specified types of merchandise or services excluded from the computation of percentage rent. Usually however such percentage rent computation is based on gross sales defined to cover all sales made from the premises and occasionally certain other sales. No deductions are normally allowed for uncollectible accounts, and credit sales are recorded at the full sale price during the month the sale is made. Among items commonly deductible from gross sales are cash refunds to customers, all sales tax paid, and allowances for goods returned to shippers or to other stores or warehouses of the tenant. Some leases contain a provision setting forth the conditions and methods of computing rents to be paid during periods when, due to damage or destruction, condemnation or other causes beyond control, the tenant is not able to occupy and merchandise the full premises.

4) Common Areas. Common areas include parking lots, truck roads and loading docks, delivery passages, vertical transportation equipment, pedestrian malls and walkways, plazas, courtyards, public accommodation areas such as rest rooms, auditoriums and first aid stations, landscaped areas, and all access, egress and interior roads not owned by a municipality. Some leases define the common areas by listing the components while others delimit the area involved by stating that all space and facilities not leased to, or designed for the occupancy of, a tenant or the developer are part of the comon area.

This clause includes:

The grant of use of the common areas to the tenant.

The requirement that the developer construct the specific common areas and that he operate, manage, equip, police, light, repair, and maintain the common areas in a manner determined by him.

The requirement governing the minimum capacity of the parking lot which is expressed in the number of car spaces to be provided, or specified as a relationship between the area of the parking lot and the area of the rentable space of the center, or as a certain number of car spaces per thousand square feet of rentable area.

The requirement providing for control by the developer of the parking and common areas. (This is accomplished by according the developer the right to make rules concerning the use of these areas and requiring tenant compliance with such rules as are established by the developer. Usually the lease specifies that the tenant and his employees are required to park in places designated by the developer and to assist in enforcement by furnishing to the developer the license number of the tenant's vehicles and those of his employees. Most leases specify that the developer may charge for parking if such a charge is made for the purpose of preventing misuse of the parking facilities, but not for the purpose of creating a profit. In such cases, the revenue is ordinarily applied to the cost of operation of the common area. If the center is designed so that it contains a road that might be used for public through-traffic, a clause may be included giving the developer the right to temporarily close the parking areas as often as may be required by local legislation and practice in order to prevent municipal or public ownership of the road through usage.)

The requirement that the tenant pay his share of the cost of operating, maintaining and repairing the common areas. (The lease usually specifies the type of cost items allocable to maintenance of the common area. Normally these can include cleaning, snow removal, fire protection, cost of liability and property damage insurance, workmen's compensation insurance, personal property tax, withholding and social security taxes, fees for required licenses, supplies, management and supervision of these common areas and any other item not chargeable to capital account, and exclude the depreciation of initial construction costs. Usual lease agreements exclude real estate taxes on the parking lot as an item of cost, but specify that they can be included if a charge is made for parking and revenue so derived is subtracted from the total maintenance and operating costs before they are pro-rated among the tenants.)

The manner in which the charge is pro-rated among the tenants, which varies from center to center. The basis for the common area charge may even vary in one or two cases within a shopping center, reflecting the success of strong tenants in securing for themselves a more favorable formula for computing this charge than is applied to the remainder of the tenants.

While undoubtedly many different methods are in use, the following three are most frequently employed in pro-rating the costs incurred in the operation of the common areas:

1) A *pro rata* charge. This is a fraction of the total maintenance cost and is calculated on the basis of the relationship that the area occupied by each tenant bears to the total rented area (or rentable area if so stated in the lease) of the shopping center. For this purpose levels which are not main merchandising levels may, in some instances, be weighted at less than ground level.

2) A *fixed* common area charge. This is an established dollar amount that the tenant is required to pay as his share of the cost of maintaining the common area. This type of common area charge is stated as a fixed sum of money for a specified period of time.

3) A *fixed variable* charge. This is generally based on the productivity of the tenant. When the common area charge is calculated on this basis, it is usually expressed as a percentage of sales.

Occasionally a clause in the lease gives the developer the option of contracting the operation of the common areas to a third party if this is deemed by him to be in the best interests of the shopping center.

5) **Care and Use of the Premises.** Most shopping center leases contain provisions relating to the care and use of the premises. These provide for continual operation by each tenant in a manner that will contribute most to the successful operation of the shopping center. They require the tenant to:

Merchandise 100 percent of the leased premises during each day the center is open for business during the entire leased term. Furthermore, the tenant is required to conduct his business activities in such a manner that the character and reputation of the center is enhanced and, at the same time, maximum revenue is produced for the developer.

Abide by restrictions in the lease, affecting the character and appearance of the center, which prohibit fire and bankruptcy sales, the posting of signs in or on the premises without the prior approval of the developer, the use of the common areas to display or sell merchandise, the operation of a similar business within a specified distance of the center.

Most leases prohibit the use of phonographs or any audio equipment that can be heard outside the leased premises.

Operate his business under his specified trade name and use the name of the shopping center in his business address and in his advertising.

Usually the tenant is further required to:

Keep his premises and/or show windows lighted from dusk until a specified time each day during the lease term that the center is open for business.

Keep the premises clean, store all trash and garbage within the premises, and arrange for its regular pick-up at his expense.

Arrange for the pick-up and delivery of merchandise in areas designated for that purpose by the developer, subject to any rules and regulations established for that activity.

In many instances membership in the Merchants' Association is mandatory, usually without requirement for mandatory financial support, but most often membership is provided for by a permissive clause requiring the tenant to "cooperate in the formation and maintenance of the Association with the objective of establishing an effective promotion program."*

This section usually includes standard provisions that the tenant conduct his business in such a manner as not to constitute a nuisance, injure the reputation of the center, mutilate or abuse the premises, or cause the insurance rates to be increased. It also provides that the tenant shall not use the premises for any unlawful purpose or any retail use other than the one specified in the lease.

6) **Utility Services.** The provisions of this section vary in accordance with the arrangement chosen for the distribution of utility services. If the center is to be served by a central source of heating, electricity, gas, hot and cold water or air-conditioning, the lease requires that the tenant accept such service from the developer, or his agents, and that he pay for it in the manner specified. If each premise is to be served directly from a public source or, in the case of air-conditioning equipment, each tenant is to install and operate his own facilities, then the lease merely requires that the tenant be responsible for arranging and paying for such services.

If the center is to have a central air-conditioning system it is common practice to require the tenant to operate the facilities so that the temperature is maintained at a constant standard. The lease may also include a requirement that the tenant pay what is frequently termed an air-conditioning stand-by charge. This is a fixed charge to the tenant to return to the developer the capital costs incurred in the installation of the chilled water facilities or condenser water system in the central plant and for the distribution system, (possibly including the portion within the tenant's premises if the developer has undertaken the financial responsibility for the latter). This charge is usually calculated to amortize these costs over a given period of time, plus interest, and is generally payable on a monthly basis. Where central distribution systems are used, the basis for the charges to the tenant is specified in the lease provisions for utilities. In some instances the charges are based on consumption as measured by meters and in other cases rate schedules based on leased space are employed. When the tenant is required to pay a share of the cost of supplying the service, the billing is frequently done on the basis of an estimate by the developer. If such is the case, the lease usually specifies the allowable components of the total cost and provides for monthly payments by the tenant based on the estimate, and for yearly adjustment of amounts involved.

7) **Repairs.** The provisions of this section usually reflect conventional real estate practices with respect to the responsibility of both parties. The developer is usually required to repair all structural portions, foundations, exterior walls, except plate glass portions, and the roof, except where repairs are necessitated by negligence of the tenant. The tenant is usually required to repair all other portions of the premises with special reference to the responsibility for the replacement of damaged or broken plate glass and for periodic decorating of the interior.

*For further discussion on this topic see Part III, Chapter 2.

8) **Installation, Signs and Alterations.** In this section the tenant is generally required to provide and install, at his own expense, all interior installations, such as lighting and store fixtures, floor coverings, any equipment required by his operation, and all interior painting and decorating.

Installation by the tenant of any outdoor equipment or signs; exterior painting of any kind; changes to the store front or any portion of the exterior are specifically prohibited without the prior written consent of the developer.

The conditions under which the tenant may make alterations to any portion of the premises are usually stated, and prior approval of the tenant's plans and specifications are a condition of the lease.

9) **Indemnity.** Most shopping center leases require that the tenant indemnify the developer against any claims for damages arising from the operation of the tenant's business, or any act of negligence on the part of the tenant or his employees, or any lien against the premises whether it be for services, equipment, material or for any other reason. The tenant is also required to actively defend the developer and himself, at his own expense, against any action arising through an act of the tenant or his employees. Furthermore, the tenant is usually required to agree not to bring any action for damages against the developer in the event of loss due to failures or defects in the structure in which the premises are located or from any act or negligence on the part of any tenant or person in the shopping center.

10). **Insurance.** Generally the lease contains clauses providing that the tenant obtain public liability and property damage insurance to specified limits.

It is also generally required that the tenant maintain plate glass insurance protecting both the tenant and the developer — as their interests may require — against breakage or damage to glass portions of the premises.

Leases normally require that the tenant maintain insurance on his fixtures. The tenant is required to furnish the policies, or proof that they exist, to the developer. The developer may purchase the coverage required in the lease if the tenant fails to do so and collect the cost of the premium from the tenant. This section commonly includes the requirements that the tenant is not to use the premises in a manner that will result in any increase of the insurance rate of the balance of the center and often requires that the tenant pay any increase that results from such use.

11) **Damage by Fire or Other Casualty.** The responsibilities and alternatives of both parties in the event of damage or destruction of the premises, or of the building housing the premises, are defined in this section. Often this section is written in such a manner that it applies only to an insurable casualty, leaving the way open for the two parties to reach agreement on whatever basis they wish, should uninsurable damage or destruction occur.

Tenant and developer options to cancel by reason of casualty differ from lease to lease, but most allow for the lease to continue in effect, with an appropriate abatement of rent, if minor damage affecting less than 20 percent of the premises takes place. Frequently either party may cancel within a specified period of time, if the damage affects more than 20 percent of the total leased premises.

Usually the damage provision contains a clause covering a situation wherein the developer may cancel if the building, or even the total project, containing the premises is damaged or destroyed in an amount exceeding a specified proportion regardless of the damage to the leased premises. The work responsibility of the developer and tenant for reconstruction usually follows the pattern established in the initial construction.

12) **Eminent Domain.** The conditions governing the developer and tenant alternatives in the event of the taking by right of eminent domain, of a portion of the premises, the building or project housing the premises, or the common areas, are set forth in this section. Generally the lease is terminated automatically if the entire premises are taken. As in the case of the damage or destruction provisions, the cancellation options of the developer and the tenant vary from lease to lease. If less than 20% of the leased space is taken, then the owner is often required to make necessary repairs or alterations so that the premises constitute a "complete architectural and merchandising unit," and the lease continues in effect with an appropriate abatement of rent. In the event of a substantial taking of the leased premises — often designated as more than 20% of the floor area or of the building or project in which the premises are located — cancellation options are frequently available to one or both of the parties for a specified period of time. Ordinarily the developer has the option to cancel if a substantial portion — usually more than 50% of the floor area — of the building housing the premises or of the total project is taken.

A clause is frequently included providing that each party, under the same division of work responsibilities in effect during the initial construction, promptly make the repairs and alterations necessary to restore the premises, and that each party is entitled to compensation for damages as their respective interests appear.

13) **Assignment and Subletting.** The standard lease form generally prohibits the tenant from assigning or subletting the premises in any manner, whether directly or through bankruptcy proceedings. However, strong tenants frequently gain concessions on this point.

But, even when tenants are able to bargain for a modification permitting them to assign or sublet, such right is rarely ever granted without control. Most often it is stipulated that only a specified portion of the premises can be sublet and that the sublet portion must be operated as a department of the tenant's store. It is sometimes required

that any assignment be subject to the approval of the developer, and in most cases where assignment or subletting is permitted the tenant remains financially responsible for rent and other sums due under the terms of the lease.

14) Access to Premises. Most leases allow the developer access to the premises during reasonable times for repairing, inspecting, or showing the property to prospective tenants. Sometimes it is provided that the developer may post a "for rent" sign on the premises for a stipulated period of time prior to the expiration of the lease term.

15) Remedies and Defaults. The lease generally contains a section in which the conditions of default are described and where the alternatives available to the developer are outlined. Leases vary in the degrees of protection provided the developer, but in order to give management a reasonably sufficient framework for action this section should include:

The definition of what constitutes default on the part of the tenant. This can include assignment for benefit of creditors, any undischarged attachment or lien against the premises, bankruptcy or insolvency of the tenant that is not dismissed within a specified period of time, failure of the tenant to pay rent or any sums due under the lease within a stated period of time and failure of the tenant to perform any of the covenants of the lease agreement.

The courses of action available to the developer in the event of default can include any or all of the following:

The right to re-enter and re-let the premises, with the costs of re-entry to accrue against the tenant who is to remain responsible for the financial obligations of the lease during the remainder of the term.

The right to cure any tenant default at the expense of the tenant and to collect the costs incurred from the tenant. Sometimes the developer is entitled to recover such costs plus interest.

The right of first lien against the property of the tenant within the premises to guarantee the payment of rent and the performance of each provision of the lease.

The developer's rights and remedies as provided by the lease are cumulative, do not so operate as to exclude each other and may be exercised as often as the need arises during the lease term.

16) Subordination. Most leases require the tenant to agree that the lease is to be subordinate to any mortgage or other financing agreements affecting the premises. In such cases it is usually provided that, in the event of foreclosure, the holder of such a mortgage or lien shall permit the continuance of the lease if the tenant is not in default and the tenant is usually required to agree to give whatever written assurance may be required by the holder of the mortgage to assure such priority.

17) Consent Not to be Unreasonably Withheld. Normally the developer is required to agree that his consent or approval will not be unreasonably withheld in certain specified cases where such approval is a condition of the lease.

18) Estoppel Certificate. The tenant is frequently required to agree to execute, upon written request from the developer, a statement certifying that the lease and/or any subsequent modifications of the lease are in full force and effect as well as certifying the date through which the rent and other charges have been paid.

19) Notices. The conditions under which notices are to be given — such as the number of copies, the destination and the type of carrier to be used — by one party to the other are set forth in the lease.

20) Surrender of the Premises. The conditions of surrender of the premises, or continued occupancy, at the close of the lease term are usually contained in the lease. It is generally required that the tenant surrender the premises in good condition and repair and in the same condition as he received them, excepting that all additional fixtures or installations that are permanently affixed to the premises become the property of the developer. Such equipment or additions are usually to remain intact unless the developer requests their removal in which case the tenant is to comply and repair all damages that might occur in the process.

Leases usually provide that if the tenant remains in possession of the premises after the lease term, such tenancy is to be on a month to month basis and as such subject to all conditions of the lease. Occasionally a monetary penalty is levied requiring that the tenant pay twice the fixed minimum rent required by the lease during such continued occupancy of the premises. In some instances he is required to pay the greater of either twice the fixed minimum rent, or the percentage rent specified for gross sales transacted in the premises.

21) Miscellaneous Provisions. The provisions relating to the purely legal aspects of the agreement are usually found grouped together in the lease. The points commonly covered are:

The nature of the relationship between the parties.
Cumulative remedies.
Provisions relating to voting control of tenant's corporation.
Applicability of the state law in interpreting the lease.
Invalidity clause, limiting the effect of invalidity of one or more provisions.
Meaning and effect of captions or headings of lease agreement.
Provisions relating to delays in performance.
Extent to which agreements are binding on heirs, administrators and assigns.
Responsibility for attorneys' fees and costs.
Security deposit, if applicable.
Relationship with brokers and payment of commissions.
Effect of conveyance of either landlord's or tenant's interests.
Recording of the lease and preparation of special document if desired.
Limitation of developer's liability to extent appropriate.

The comments in this section are intended for the guidance and assistance of developers, tenants, and planners, and not as a substitute for competent legal advice, which should be obtained in every case.

PART II–CHAPTER 11

The Shopping Center Budget

An essential part of the over-all activity of the planning team is to project the expected income of a shopping center operation and relate it to the estimated capital investment. These projections are developed step-wise in intimate and complete synchronization with all planning phases. Various projection alternates are tried and weighed during the exploratory phase and are refined in consecutive phases. We might refer to these as *exploratory budgets*, and *preliminary budgets*. Before the start of the final planning phase, income and capital expenditure projections should be more accurately established so as to form the *working budget* of the developer. The function of the exploratory and preliminary budget is to guide early planning, leasing, and financing activities. The working budget should control all such activities.

Before proceeding to set up these projections, it is necessary to have a clear understanding of the term Construction and Development Cost. Only then can the interrelation of income and cost be intelligently considered. We have therefore divided this chapter into three sections: Shopping Center Costs; Interrelation of Cost and Income; Setting up the Budget.

A—Shopping Center Costs

Confusion and controversy always develop when attempts are made to use the records of projects already constructed as guides for cost estimates of a center about to be undertaken. The confusion arises from the fact that the question of cost embraces not one but several concepts, each of which must be isolated and resolved before the subject can be clarified.

Construction costs per square foot are often quoted casually among developers, operators, architects and store executives. Such quotations cover a wide range, all the way from $8 to $30 per square foot. Unfortunately, the calculating methods underlying these figures are so divergent that any comparison, without further analysis, is impossible. A wide variety of methods is employed with regard to the two factors which form the equation: cost and area. For a comparison to be valid, it is obviously necessary to ascertain whether the methods used for the establishment of each factor have been identical. Let us consider first the factor of area.

1) Definition of Area. When the square-foot area cost of a shopping center is quoted, any one of several concepts may be intended, covering a wide range of implications. The most commonly used terms are defined below. Inasmuch as "Total Construction Area" is the most inclusive term, we relate the others to it.

	Range of Ratio to Total Construction Area
a) *Total Construction Area* The gross area of all covered and enclosed space on all floor levels, including mezzanines, truck roads and service facilities, plus an allowance of one-half of the floor area for roofed-over but not enclosed areas (such as canopies, colonnades, crosswalks). In the case of covered malls the roof area of the mall is usually added.	100%
b) *Total Floor Area* As defined in "a" but without covered areas between buildings, and without allowance for overhangs, canopies, truck roads, service facilities, and covered mall roofs.	87%-93%*

c) *Total Rentable Area*
The portion of total floor area located within premises rented to tenants or proposed to be rented to tenants, excluding auditoriums and other common facilities even though they may be income-producing. In the case of counter type, free-standing retail stands within mall or court areas as they occur especially in centers with covered malls, an area 6 feet in width around such retail stands should be included in the rental area. 85%-91%

d) *Total Sales Area*
Very hard to define and identify but frequently used in specifying desired parking ratios. Presumably refers to that portion of the total rentable area used by tenants for sales space. "Selling area" is a term well known and defined in department store and specialty store operations and is the term intended to be used for this purpose. The concept is sound in theory as it indicates floor area used for sales to customers and may vary, depending upon the functional concept of the store, from 60-80% or more of the rentable area. It is, however, a figure which, for the developer, is impossible to determine without research and cooperation of each individual tenant and which varies from time to time as tenants change the characteristics of their operations. 51%-73%*

e) *Rentable Area at Ground Floor Level*
Same as "c" above, but excluding basement, upper level or mezzanine space. 30%-91%*

*In the case of covered malls, the ratio to "a" would be considerably smaller.

It is our opinion that the most meaningful term for purposes of cost and income projections is "Total Rentable Area," as it represents the area from which rental revenue is actually produced. In further discussion therefore, wherever costs are related to square footage we base area on the definition already given under Total Rentable Area.

The important point in comparing or considering costs of various shopping centers on a square foot basis is to determine which method of definition of area was used. A project quoted as having cost $15 per square foot, if this refers to Total Construction Area, might actually have cost as much as $17.25 per square foot on the basis of definition of the term Total Rentable Area.

2) Development and Construction Cost. The second factor of the equation (cost per square foot) is capital cost, sometimes referred to as "construction cost" or "capital investment." To be sure that cost quotations of various centers lend themselves to comparison without further adjustment, we must ascertain whether, in addition to basic construction cost, they include:

a) Land cost.

b) Normal site improvement costs, such as grading, underground utilities, parking lot surfacing and lighting.

c) Costs created by unusual site conditions, such as unfavorable soil conditions, peat, water, rock or other physical factors as well as special expenditure for traffic improvements whether on or off the site.

d) Expenditure for the improvement of tenant spaces.

e) Expenditure for revenue-producing utilities, such as heating, air conditioning, distribution of electricity, etc.

f) Expenditure for professional fees.

g) Expenditure for taxes, insurance and temporary heat during construction.

h) Expenditure for leasing and management during the development period.

i) Expenditures for financing, mortgage standby fees, appraisal, and interest during construction.

Only when it can be ascertained that the cost figure is all-inclusive or that each part is properly identified can one judge the comparative costs of various projects.

Because of the difference between the functions of the neighborhood and intermediate center and the more complex ones of the regional type, it should be recognized that there will be a basic difference in the services that have to be offered in each. This factor is directly related to the size of the project, and does not necessarily reflect quality. It follows that a neighborhood center can probably be constructed at a cost of possibly 20-30% less per square foot than a regional type center of precisely the same construction quality and specifications.

a) *Land* Cost. The typical range of land costs has already been discussed in Part I, Chapter 3. While these costs are obviously part of the total investment and must be faced by the developer as part of his total expenditure, they are rarely if ever considered as part of the cost comparison when total construction cost figures are discussed.

b) *Normal Site Improvements.* The cost of site improvements will vary from project to project for reasons relating to decisions by the planning team concerning traffic, parking and similar planning elements. The following form part of the expenditure in every shopping center project:

	Range of Normal Expenditure (per square foot of total rentable floor area of buildings in the project)	
Grading	.18	.25
Underground utilities		
Storm drainage	.12	.18
Water	.08	.12
Gas (usually by gas company)	—	—
Sanitary sewer	.02	.04
Electrical conduit	.15	.30
Telephone conduit	.02	.06
Parking lot paving	.40	.50
Parking lot lighting	.10	.20
Curbing and marking of the parking lot	.08	.15
Landscaping (including irrigation)	.20	.30
Total	**1.35**	**2.10**

c) *Unusual Site Conditions.* In discussing the prerequisites for planning (Part I, Chapter 3) we have pointed out that the physical characteristics of a site exert a strong influence on cost.

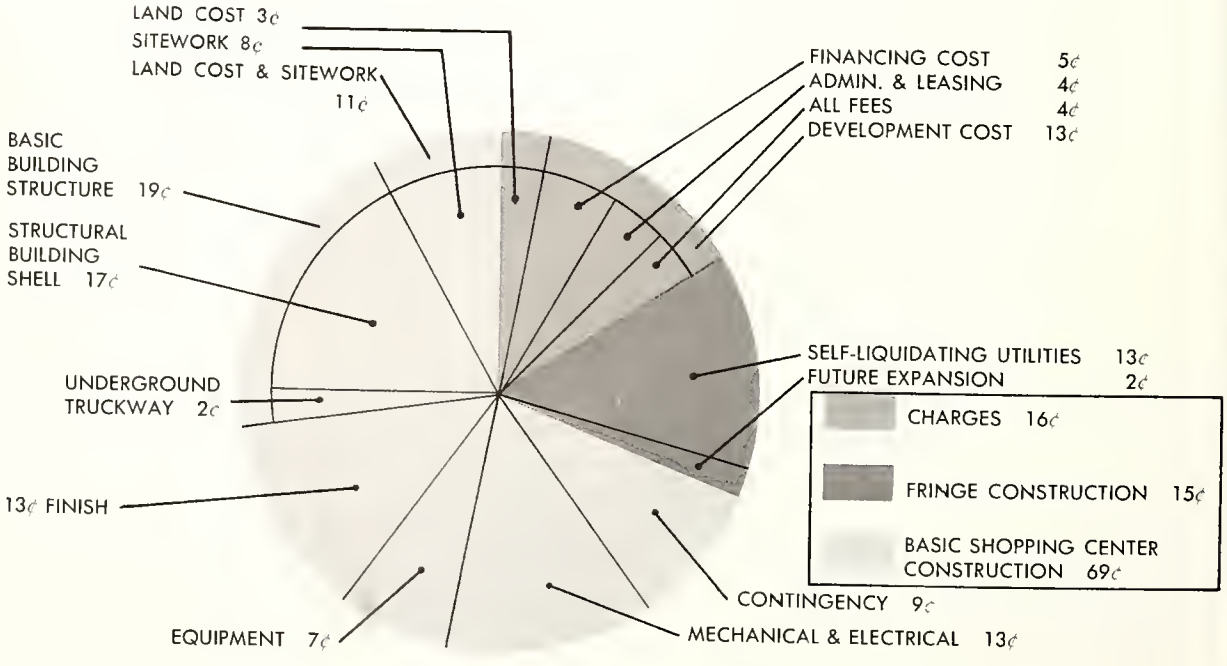
The expenditures caused by unusual site conditions should be analyzed before a decision concerning site acquisition is made. Basically, the cost of all measures necessary to correct unusual site conditions should be regarded as part of the land cost and proper judgment should then be employed to determine whether the land cost, thus raised, is justified. Whether, for example, expenditures for additional road construction or other traffic improvements, the construction of parking decks or garages due to limited size of the site, or the cost of special foundation methods, waterproofing, rerouting of waterways and so on, can be justified depends on the character and potential of the particular project and on the basic land cost. The range of such unusual site costs is very great. Experience has shown that in certain quality locations they may even exceed $50,000 per acre without necessarily suggesting abandonment of the project or the substitution of a site in a poorer location. As a general rule, however, total land costs that, including the factor of unusual site improvements, reach $30,000 per acre require close scrutiny.

One could obviously be easily misled in comparing construction costs of a center that faced only normal site improvements with one that expended considerable sums for the correction of unusual site conditions.

d) *Tenant Spaces.* Wide variations exist in the method of handling the expenditure for finishing of tenants' spaces (see Part II, Chapter 10).

The variation in cost to the developer may be substantial in using these respective methods, but a pro-

The shopping center dollar.



portionate variation in rent income is likely to result. Thus, cost comparisons must take into consideration the rent variations that flow directly from the method by which tenant improvements are negotiated in the leasing procedure.

e) *Revenue-Producing Utilities.* Another element exercising substantial effect on the cost structure is the manner in which heating and air-conditioning plants and the distribution of electric power and water are handled. The factors that should be taken into consideration by the developer in deciding whether or not to construct central utility plants and distribution systems are discussed in Part II, Chapter 9.

Whether heating is done through individual plants, space heaters, or a central plant, the capital cost will not vary significantly. On the other hand, only in the case of a central plant will the operating and income statements reflect the income derived from a utility operation. As far as other utilities are concerned (air-conditioning, electricity and water) service should only be provided by the developer if the operating costs plus a return on the capital investment can be derived from the revenue billings. Consequently, when comparing total construction costs of various centers, the capital cost of these utilities should not be included without taking into account the resulting revenues.

The same applies to other special income functions such as gas stations, car wash facilities, drive-in restaurants and parking space allocated to tenants constructing their own buildings on land which is ground leased from the developer. All of these items will tend to increase the investment and may appear to reflect unfavorably in cost comparisons with other projects — unless the effect on the income account is fully noted.

f) *Expenditure for Professional Fees.* A portion of the investment budget has to be allocated to professionals for planning, designing, engineering, economic, legal, and tax consultant services. For this, an amount ranging from 7-13% of the total construction cost should be set aside. When the architect does not perform complete planning, designing and engineering services, professional fees will also be paid to specialists: landscape architects, structural, mechanical, electrical and civil engineers, traffic and graphic consultants, etc.

Because it is in the nature of shopping center development that the question of whether or not the project can be implemented and what its size and character will be is only answered at the end of either the exploratory phase or the preliminary phase, it is an advantage when the relationship of the developer with the professionals is flexible during these phases. Fees predicated on a cost plus overhead plus profit basis will be most workable. They may either be based on an hourly rate which includes overhead and profit and is established in advance for principals and staff members, or by payment of a multiple of the actual hourly wages of production personnel plus reimbursement for all cash expenditures. Multiples usually range from 2.5 to 3 and cover overhead and profit.

Once the work program is firmly established, more definite fees can be agreed upon. Some of the arrangements used are monthly or yearly retainer fees, lump sum fee arrangements, or—and this applies especially to the architectural and engineering professions—a fee which is established as a percentage of the construction cost.

g) *Expenditure for Taxes, Insurance and Temporary Heat During Construction.* The nature of the charges in this category do not require definition. In total, they will represent between 2 and 5% of the total construction cost.

h) *Expenditure for Leasing and Management During Development Period.* Definition is similarly unnecessary for this category. The range of total cost would be between 1½ and 4½% of the construction cost of the project.

3) Basic Construction Cost. The term "Basic Construction Cost" excludes all the a-h items listed above. Thus, only the actual construction cost of store buildings of various types and size embracing single and multiple tenant structures and the construction of accessory facilities, but excluding the improvements of the tenant spaces, site improvement and the construction of self-liquidating facilities, are here considered. These costs are comparable to construction costs for standard commercial structures not located in shopping centers. They will be influenced by construction quality and will range widely, between $6 and $13 per square foot of total rentable area. This wide range is only partly due to qualitative differences in design and construction. Other factors which exert a strong influence are:

a) *Climate*, which will influence planning and design, materials, construction methods, heating, air-conditioning, surfacing of traffic and parking areas, etc.

b) *Local building rules and regulations* and their application to the center. Smaller centers can take advantage of cheaper construction methods permitted by such regulations. Larger ones have to comply with more stringent ordinances. The severity of building laws changes from state to state and city to city. Non-incorporated areas often have less demanding building regulations. Building laws influence not only the structural nature of a project but because of changing exit, entrance and stairway requirements, the basic planning concept.

c) *Insurance conditions*, which might dictate higher construction costs because of a desire for lower insurance rates

d) *The investment policy of the developer* will influence quality of construction. A long range policy will necessitate better materials and methods in order to keep maintenance and operating costs as low as possible over an extended period. Short range interest, on the other hand, will permit lower construction standards.

e) *Variations in labor, construction and material costs* in different areas of the country will increase or decrease construction costs. Thus the construction costs for two identical shopping centers might differ significantly if one is built on the Atlantic Seaboard and the other on the West Coast.

f) *Cost differences caused by the changing bidding climate* in various years, seasons, and localities can be considerable. If the construction industry in a particular area at a particular time is extremely busy, the cost of construction will be higher because competition is weak. In addition to this, the contractors are often obliged to promise overtime and other premium payments in order to obtain a sufficiently large labor force.

g) *Differences resulting from scheduling of construction* can be significant. A construction period shorter than reasonable will necessitate overtime work and premiums for delivery of materials on short notice. A construction schedule that extends over an unreasonably long time (often due to the uncertainty of leasing conditions) will cause additional expenditures on the contractor's side for overhead and supervisory personnel and also will result in higher cost of construction financing.

h) *The contractual relationship between developer and general contractors* can have great impact on construction costs. Lump sum contracts arrived at by competitive bidding after a reasonably long bidding period will usually result in lower costs than cost plus or management type contracts or lump sum contracts without competitive bidding. However, the awarding of lump sum contracts will be practical only if complete contract documents consisting of working drawings and specifications, covering all the work the general contractor will have to perform, are available before bidding starts. If such complete contract documents are not available, a large number of change orders and orders for extra work will have to be given out later; since the general contractor will then be acting without competition, the value of the original competitive bidding will be partly or totally lost.

The importance of the influence of the above and various other basic conditions cannot be underrated. The same conditions also exert their influence on the non-basic items listed under Development and Construction Cost. Thus, they are potent factors which affect the capital investment to a degree often equal to, or larger than, the influence extended by planning, architectural and engineering design.

In discussing shopping center costs, we have pointed out that the comparison of costs incurred in various centers is only feasible if the composition of the entire capital investment is clearly understood and if these costs are related to a valid concept of area definition. As an example, two projects of varying characteristics but identical quality, calculated by different methods of area definition, might compare as follows:

Gross construction area	570,000 sq. ft. each
Rentable area	500,000 sq. ft. each

	PROJECT NO. 1 Cost—Per Sq. Ft. Total Rentable Area	PROJECT NO. 2 Cost—Per Sq. Ft. Construction Area
Site improvements	$ 750,000 — 1.50	$ 750,000 — 1.32
Unusual site improvements	500,000 — 1.00	nil
Revenue producing utilities	1,000,000 — 2.00	nil
Tenants' work	3,000,000 — 6.00	2,000,000 — 3.51
Architectural fees	600,000 — 1.20	*
Management costs	400,000 — .80	*
Taxes, interest and insurance	300,000 — .60	*
Basic structure (heating included only in No. 2)	4,000,000 — 8.00	4,300,000 — 7.54
Total construction cost	10,550,000 —21.10	7,050,000 —12.37
Land	400,000 — .80	900,000 — 1.58
Total project cost	$10,950,000 —21.90	$7,950,000 —13.95

*Not included in the cost calculation

B—Interrelation of Cost and Income

Budgeting for a shopping center, as for a business or a household, means essentially balancing expenditures and income. Because investments in a shopping center project are large, implementation of the project often depends on outside financing. There is an intimate interrelation between capital investment, income and outside financing which works in clockwise movement as illustrated.

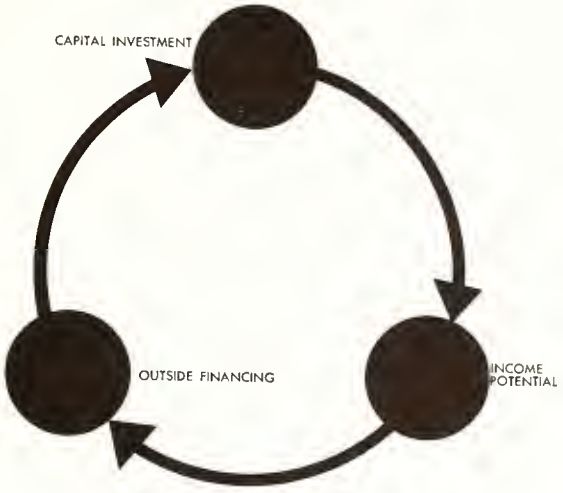
The size of the investment influences quality and quantity of rental space, and through that, the income potential. The income potential has a definite bearing on the possibility of obtaining outside financing. The availability and amount of financing, in turn, will to a large degree make the capital investment feasible.

From this, one might jump to the conclusion that high capital expenditures will automatically create high rental income and, through it, favorable financing. However, there are a number of conditioning factors that exercise an influence on each of the three links of the chain. Any one of these influences can be so potent as to change decisively each of the links and thus alter the entire chain reaction.

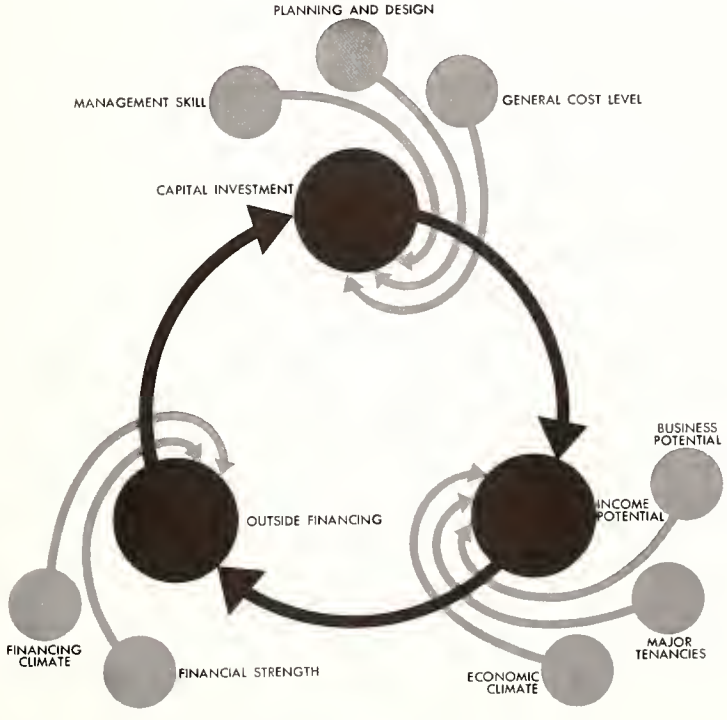
Income is influenced by the existing business potential which in turn depends upon the location (see illustration). If such potential is low, no amount of additional investment will result in higher rental income. Income is also influenced by the availability and the strength of major tenancies, and it is finally influenced by the general economic climate. Thus income, instead of being dependent solely on the size of the capital investment, is also exposed to the effect of these three additional forces.

The type and amount of financing is influenced by the financial strength of the developer and by the general state of the financing market (financing climate). In times of short money supply, even a center with high income potential might be unable to obtain a favorable loan.

Assuming the prerequisities (see Part 1, Chapters I-6) have been met, the true operative value of the investment



Chain reaction between investment, income and financing.



Secondary factors in the chain reaction.

depends on three main factors: management and operating skill, planning and design quality, and general price levels prevailing in the construction industry.

Since techniques of financing and leasing have been discussed (see Part I, Chapters 5 and 6; Part II, Chapter 10), we will now primarily consider the relationship between capital investment and income.

The following tabulation illustrates the manner in which individual capital investment items are supported by specific items of income. It does not attempt to express the extent of the returns necessary to justify each item of investment because this will vary from project to project.

INVESTMENT JUSTIFICATION

CAPITAL INVESTMENT	NET INCOME*
A. BASIC INVESTMENT	**A. NET INCOME FROM TENANT RENTS** (of which the guaranteed rent must be at least sufficient to permit adequate financing)
1. Basic Construction Cost	
2. Land Cost	
3. Charges Proportionately Applicable to Basic Construction Cost	
B. SECONDARY CONSTRUCTION COST	**B. SECONDARY NET INCOME**
1. Self-Liquidating Central Utilities	1. Stand-By Charges
2. Miscellaneous Facilities	2. Rental from Miscellaneous Facilities
3. Preparation for Future Expansion	3. Postponed Income from Future Tenant Rents
4. Special Additional Tenant Work (such as fixturing, interior finishes, etc.)	4. Repayment of Installments over Term of Lease or Sooner, or by Recognition in Lease Terms
5. Charges Proportionately Applicable to Secondary Construction Cost	5. To Be Added Proportionately to Items 1-4
C. IMPROVEMENTS RELATING TO SURROUNDING AREAS Cost of Land and Improvement Allocated to Surrounding Areas (to the extent such allocation of cost is logical in the circumstances)	**C. INCOME FROM SURROUNDING AREAS** Income from or Increased Valuation of Surrounding Real Estate

In addition to the above equations relating to capital investment, planning consideration must also be given to operating characteristics:

D. OPERATIONAL EXPENSES	**D. OPERATIONAL NET INCOME**
1. Upkeep, Maintenance and Operation of Common Areas	1. Net Income from Common Area Charges
2. Upkeep, Maintenance and Operation of Central Utilities	2. Net Income from Sale of Utility Services

*The term "net income" refers to gross income less those operational maintenance and upkeep expenses which are to be borne by the developer.

Good planning will result in the desired profit to the developer. The best planning is that which achieves capital expenditures representing the minimum required for full utilization of the potentials inherent in location and site, while assuring highest income and lowest operating, maintenance, and upkeep expense. From the above it follows that the cheapest shopping center is not necessarily the most economical, as it may not create the highest potential income and, furthermore, may result in high operating and maintenance costs. Higher capital expenditures are, on the other hand, out of order when not justified by a proportionately higher income potential.

The quality of the planning and design influences, in varying degree, the items listed on the income side of the Investment Justification tabulation. Minimum guaranteed rents, especially those to be paid by chain store organizations, may not vary greatly with the quality of physical planning. Whether a store is located in a superbly planned center or in a poorly planned one, there may be only a moderate difference in the minimum guaranteed rent that a tenant is willing to pay; yet sometimes this difference can be very significant in relation to the profit element of the investment.

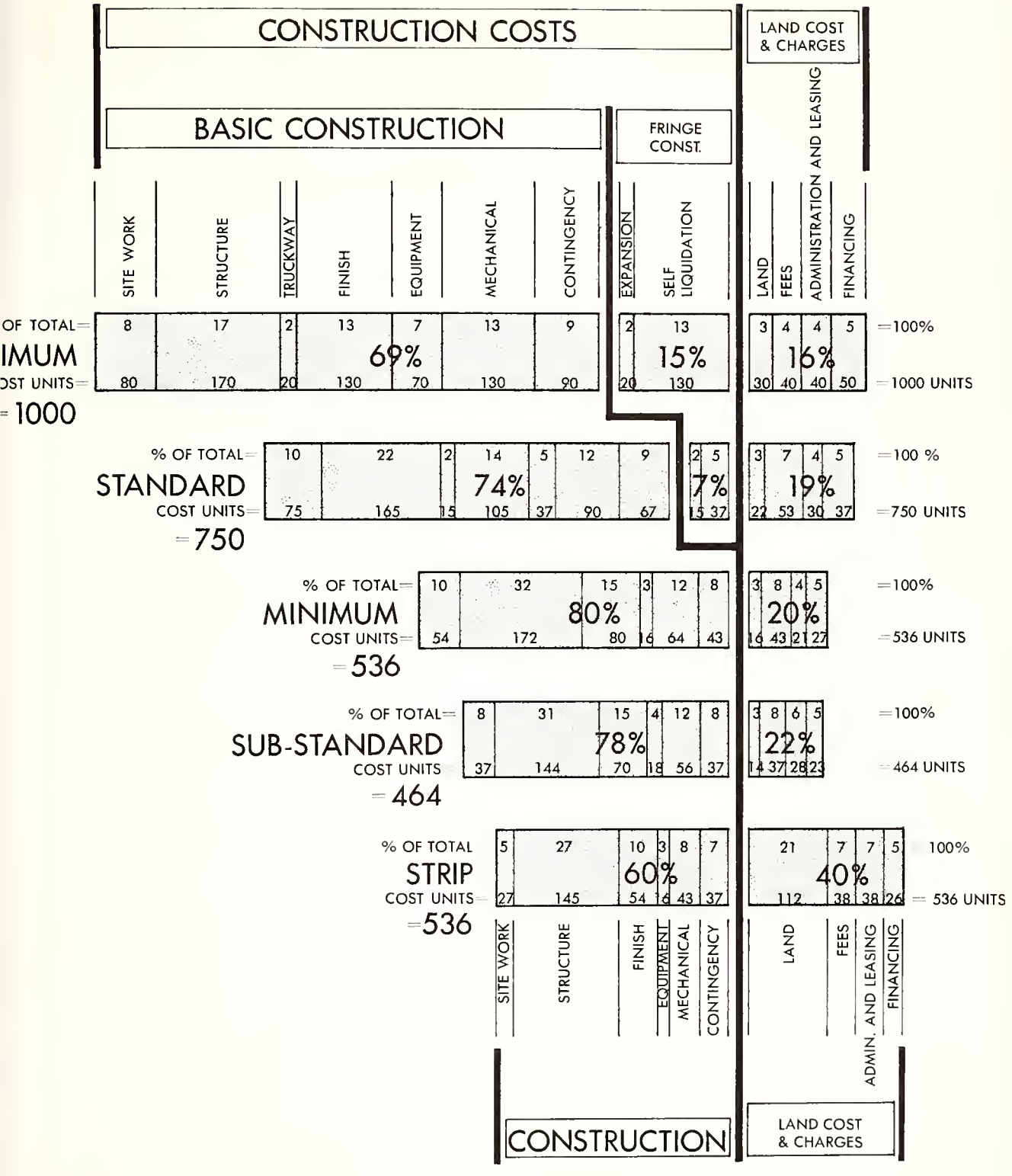
Financing will benefit from good planning and design, especially since many large insurance companies base their commitments on a thorough analysis of location, and planning and design features of a center. Thus, it may be expected that loans on more favorable terms can be obtained for a shopping center of higher over-all planning standards.

The amount of additional income derived on the basis of percentages from sales may be greatly influenced by design and planning standards. Not only can higher percentages frequently be obtained when leasing a superior shopping center, but business volume per square foot will probably be higher in such a center. As a rule, a poorly located, planned, and designed center will less frequently and less regularly reach the sales figures necessary to make percentage clauses operative than a superior center will. Inasmuch as income from percentage rents may spell the difference between a break-even and a profitable operation, all measures taken to obtain such excess rents are highly significant.

The income from stand-by charges is of course conditional on the supplying of the values for which such charges are paid. Though these charges are usually calculated only to amortize the capital costs with interest, they make possible the introduction of features such as central air-conditioning, shopping center-owned and -operated electrical distribution systems, master television antennae, etc., which greatly improve the over-all quality and appearance of the center. The utilities thus created with a modest increase in capital equity on the part of the developer may make feasible profitable sale of electric power and refrigeration. As far as central distribution of electricity is concerned, it should be pointed out that its feasibility depends on the willingness of utility companies to cooperate, and on local regulations. In certain locations it is also possible to drill wells and sell water profitably to the tenants at prevailing local rates.

Income or increased values from surrounding real estate can be achieved by sound planning (see Part II, Chapter 4).

Income from rental of miscellaneous facilities is often



Construction and development cost chart.

created by imaginative planning which may include the introduction of display cases, advertising columns, kiosks, exhibition spaces, etc.

The functioning and success of a shopping center will be enhanced if recognition is given to the fact that the individual rental area of each tenancy contains in itself qualitative differences. Actual sales areas can be regarded as "primary" rental area, and non-selling areas, such as storage, employees' areas, offices, etc., as "secondary" rental areas. If primary areas are so located that they have greatest contact with shopping foot traffic (that is, on main merchandising levels) and secondary rental areas are relegated to other than merchandising levels, utilization of space and sales results per square foot will be greatly improved. In order to succeed in this respect, it will usually be necessary to move service facilities, such as loading and unloading, to non-merchandising levels (see Part II, Chapter 8).

The Construction and Development Cost Chart illustrates the capital investments for a number of theoretical shopping center projects. Because it would be impossible to express the numerous factors which influence costs in terms of dollar amounts it only attempts to illustrate the relative differences in cost as they occur in types of varying quality and to show the percentage-wise allocation for the various segments of the investment.

To eliminate extraneous circumstances, a number of assumptions have been made: the compared centers are of equal size; contracts are awarded on competitive lump sum bidding; no unusual site, foundation or off-site work is included.

The theoretical examples illustrate:

a) *The Optimum Shopping Center.* It is planned and designed in accordance with the best practices. Its parking area provides space for 7 cars per 1,000 square feet of rentable area. It is of fireproof construction. It contains an underground truck road, central utilities, and provisions for future enlargement.

b) *The Standard Shopping Center.* Planning and design have been scaled down. Parking ratio is 6 cars per 1,000 square feet of rentable area. It is partly of fire-resisting, partly of fire-proof construction. It contains an underground truck road. Utilities are only partly centralized. There are provisions for future enlargement.

c) *The Minimum Center.* In order to effect savings, compromises with regard to some planning and design principles are made. Its parking area provides space for 5 cars per 1,000 square feet of rentable area. It is of fire-resisting construction. Service facilities are located on the surface in screened service courts. It has no centralized utilities or provisions for future enlargement.

d) *The Sub-Standard Center.* This center sacrifices nearly all sound planning and design principles in order to cut capital expenditures. Its parking area accommodates 4 cars per 1,000 square feet of rentable area. It is of non-fireproof construction; it employs sub-standard construction methods and materials. No provisions for service areas are made, deliveries being made from the curb. It provides no centralized utilities and has no provisions for future enlargement.

e) *The Strip Center.* It is located directly adjoining a suburban highway and consists of one continuous row of stores. Its construction characteristics are the same as for the sub-standard center; however, it provides only 3 car stalls per 1,000 feet of rentable area. Because it immediately adjoins existing utility lines there are further savings in the cost of utilities. It has finished elevations only along the highway frontage.

Development and Capital Costs are shown below.

The Basic Capital Costs indicated are:

A. Site work.
B. Building shell.
C. Finishes, including standard tenant allowonces.
D. Equipment, such as vertical transportation, conveyors, incinerators, etc.
E. Mechonical and electricol work, including that covered by standard tenants' allowances.
F. Contingencies set up as a reserve for additional tenant requirements and changes.

The Secondary Capital Costs indicated are:

G. Construction in preparation for expansion.
H. Self-liquidating central utilities.

The Land Costs and Charges indicated are:

I. Land cost.
J. Fees for development, planning and economic work.
K. Owner's administration and leasing expenses.
L. Cost of financing, insurance and taxes during construction.

A number of significant conclusions can be drawn from the study of this chart:

In contrast to the widely held opinion that the greatest savings can be made by cutting the quality of basic construction, the chart shows that the costs for the building shell (B) vary only slightly from the minimum (sub-standard center) to the maximum (optimum center). The span is less than 25 per cent.*

The main differences in the basic capital cost occur under the categories: Finish (C), Equipment (D) and Mechanical Work (E).

The relation between those parts of the capital investment expended for actual construction and those parts utilized for non-construction purposes (Land Costs and Charges) changes radically percentage-wise.

	Construction	Land Costs and Charges
Optimum	84%	16%
Standard	81%	19%
Minimum	80%	20%
Sub-standard	78%	22%
Strip	60%	40%

*Additional cost variations do occur but they are due not to qualitative differences but to the factors listed on pages 205-6.

This comparison shows clearly that the percentage portion of the total construction and development cost rises as the planning standards of the center decline.

The strip center shows a higher over-all cost than the sub-standard one and an over-all cost identical to a minimum center. This is mainly due to the fact that land cost for a strip center, because such land adjoins a public highway and because the site is of limited depth, is consequently higher. In comparing the strip center cost with the equal cost of the minimum center it is signifiant that percentage-wise expenditures for non-construction purposes are twice as high as for the minimum center.

In considering the results of the Development and Capital Costs chart it must be recognized that this chart deals with the comparison of costs only, without regard to income. Under varying leasing conditions it is possible that the rental achieved might be such as to produce either a more or a less favorable investment result.

From the foregoing it may be concluded that although there is an interrelation between expenditures and economic results, it is not necessarily a direct one. However, there is a very definite and direct relation between the quality of planning, and the success of an operation. Planning of high standard may result in higher expenditures, though it might also result in lower ones; it may even have no influence whatever on the size of the capital investment. The only expense directly influenced is the cost of those services which are necessary to achieve planning of greater thoroughness and higher quality. It obviously consumes less time, effort and study to develop a plan that is just adequate, in the physical and economic sense, than to search for the best plan (the best plan being the one which will allow the developer to take fullest advantage of the inherent potential.) Thus, in order to arrive at the best possible solution, one should allot sufficient funds, in relation to the total, for planning activities. If, under certain conditions, the expenditures for planning should, in proportion to the whole construction outlay, be greater than is conventionally held to be normal, this in itself should not be deemed a disturbing feature. It is completely in the realm of possibility, and has in effect been repeatedly proven, that this either does not have any influence on the total capital investment or may even result in an over-all saving. If, for example, as a result of successful planning, the relationship between rental space and total building area is altered so that a larger proportion of rental space is gained, this will make a significant change on the income side of the shopping center budget. If skillful leasing planning results in higher income from either guaranteed or percentage rents, the effects will be similarly favorable. If superior engineering and unusually thorough contract documents (working drawings and specifications) result, on the one hand, in an insignificant increase in architectural costs and, on the other, in a significant saving in construction cost, the capital investment side of the budget ledger will be favorably influenced.

Summarizing, the problem of planning costs should be approached by the developer with practicality and realism. It should be regarded as an integral part of his investment. The developer should keep in mind that this one investment item can strongly affect both his capital investment and his income and though, as we have stressed repeatedly, planning (of all types) cannot by itself create potentials for profitable investment, it is the outstanding measure through which existing potentials can be brought to the fullest fruition.*

C—Setting Up the Budget

When decisions have been made on the various cost elements outlined in the previous section, it will be possible to set up control budgets for the center.

These control budgets will cover three separate concepts: The Capital Budget; The Opening Costs Budget; The Operating Budget.

It is not the purpose of this book to outline accounting methods that are likely to be influenced largely by factors relating to the ownership of the project. The purpose of this section is to emphasize the need for correctly identifying each item of expenditure and for recognizing the importance of instituting reasonable procedures to assure the owner that expenditure will not unreasonably exceed the programmed amounts.

Similarly, the extent to which any particular item of expenditure may be justified, or how it may be treated on the books of the developer, will depend in part on financial policies of the owners and on such things as decisions relating to Federal income taxes upon which the owners' accounting procedures are established.

1) Capital Budget. Construction costs can be controlled by a combination of the following factors:

a) Intelligent architectural supervision and sound working drawings and specifications.

b) Sound estimates.

c) A correct understanding and administration of the contingency reserves typically included in the construction budget.

*Larry Smith points to several actual experiences: 1) Careful planning, in a specific project, resulted in raising the proportion of rentable space compared to total building area from 88% to 94%. This is equivalent to more than a 6% increase in income and was accomplished with the expenditure for additional professional fees of less than 1% of the cost of the project. 2) In some actual cases, average rental income was increased over original estimates by 15¢ per square foot, due to cooperation between architectural offices working on specific retail store planning functions and the leasing agents. The capitalized value of this increase in rental (at 7½%) is equivalent to $2 per square foot and was achieved under an increased architectural fee of 1% of the building cost which was equivalent to 17¢ per square foot. 3) In a small shopping center the architectural fees amounted to 13% of the capital value of the project but a very striking solution was achieved with an over-all capital cost of substantially less than $10 per square foot.

Table I

XYZ Shopping Center
Project Budget dated 12/1/60

Summary

Item	Schedule No.	Capitol Cost Estimate 6/1/58	Budget Dated 9/1/60	Budget Dated 12/1/60	Costs	
					Committed	Uncommitted
Construction	I	$5,000,000	$4,900,000	$4,950,000	$4,600,000	$ 350,000
Tenant allowances	II	1,200,000	1,250,000	1,250,000	750,000	500,000
Land & unusual site development	III	450,000	450,000	450,000	450,000	
Architect's & Engineer's fee	IV	400,000	390,000	400,000	400,000	
Interest on funds	V	300,000	275,000	275,000	140,000	135,000
Recoverable cash advances	VI	100,000	150,000	125,000	60,000	65,000
Real estate taxes	VII	40,000	40,000	40,000	30,000	10,000
Consultants	VIII	75,000	75,000	75,000	65,000	10,000
Miscellaneous	IX	15,000	15,000	20,000	16,000	4,000
Total cost of construction		7,580,000	7,545,000	7,585,000	6,511,000	1,074,000
Financing fees & expenses	X	50,000	50,000	50,000	46,000	4,000
Administrative & Leasing costs	XI	200,000	200,000	200,000	120,000	80,000
Miscellaneous prepaid items	XII	50,000	50,000	50,000	35,000	15,000
Total project cost		7,880,000	7,845,000	7,885,000	6,712,000	1,173,000

Table II

XYZ Shopping Center
Project Budget dated 12/1/60

Schedule I

Item	Schedule No.	Capitol Cost Estimate 6/1/58	Budget Dated 9/1/60	Budget Dated 12/1/60	Costs	
					Committed	Uncommitted
General contract	1A					
Site work	1B					
Yard work	1C					
Contingencies	1D					
Cost of marginal road	1E					
Miscellaneous	1F					
Total		5,000,000	4,900,000	4,950,000	4,600,000	350,000

INCOME AND EXPENSE ACCOUNTS

300 Income

310 Rent
- 311 Guaranteed
- 312 Percentage

320 Utilities Income
- 321 Electricity
- 322 Water
- 323 Heating

330 Tenant Services Income
- 331 Air Conditioning
- 332 Trash Removal
- 333 Janitorial
- 334 Maintenance

340 Common Area Charges Billed

350 Miscellaneous Sources of Income
- 351 Vending Machines
- 352 Pay Telephones
- 353 Pay Toilets
- 354 Concessions

360 Other Income
- 361 Air Conditioning Standby Charge
- 362 Other

400 Expenses

410 Administrative Expense

420 Utilities Epense
- 421 Electricity
- 422 Water
- 423 Heating

430 Tenant Services Expense
- 431 Air Conditioning
- 432 Trash Removal
- 433 Janitorial
- 434 Maintenance

440 Common Area Costs Expended
- 441 Protection
- 442 Landscoping
- 443 Maintenance and Operations
- 444 Other

450 Expenses Applicable to Miscellaneous Sources of Income
- 451 Vending Machines
- 452 Poy Telephones
- 453 Pay Toilets
- 454 Concessions

460 Publicity Expense

470 Property Expense

400 Expenses (cont'd)

480 Other Expenses
- 481 Interest Expense
- 482 Deferred Organization Expense Written Off
- 483 Deferred Leasing Expense Written Off
- 484 Deferred Financing Expense Written Off
- 485 Other Deferred Development Expense Written Off
- 486 Other

Expense Sub-Accounts

NOTE: Each item of expense should be considered in the light of the following possible sub-accounts:

1 Salaries
2 Payroll Taxes
3 Unemployment Insurance
4 Workman's Compensation Insurance
5 Employee Medical Insurance
6 Supplies
7 Services Purchased
8 Professional Fees
9 Communication
10 Travel
11 Repairs
12 Insurance
13 Real Estate Taxes
14 Personal Property Taxes
15 Depreciation
16 Unclassified

d) Rental procedures maintained within the budget framework.

e) Control of such work as is performed on a "cost plus" basis.

f) Carefully drawn contract documents.

g) Control of costs of tenants' work.

A general form of budgetary report which has been found useful in the control of such capital costs is shown on these pages.

Each major category of work is supported by a more detailed schedule identifying the various items into which the costs are allocated.

Procedures should be established whereby any expenditure will be correctly identified and reported, and whereby the adequacy of the reserve for uncommitted expenditures can be tested against the anticipated costs of work for which contract authorization has not yet been granted.

All members of the planning team should be kept fully informed of the current position as a means of effectively controlling costs within their particular areas of responsibility.

The extent to which supporting detailed schedules with explanatory notes on changes may be used will depend upon the requirements of the owner in any particular case. The important point is that the owner should be kept currently aware of the cost situation, and be in a position to test the adequacy of the uncommitted funds at all times.

The fact that a shopping center is rarely fully leased when construction starts, combined with the fact that even if leased complete detailing of plans for the tenants' space can seldom be accomplished before the general contract is let, is the major reason why no single controlled contract figure is possible although the allowance system discussed in Chapter 10 can be a workable tool towards this end.

Consequently, control procedures such as those indicated herein are essential if expenditure is to be held within planned limits.

2) Opening Costs Budget. While not a major item, this particular expenditure which occurs subsequent to the completion of construction and prior to and apart from the normal operating budget justifies special mention.

The mechanics of control can follow the same pattern as that of the capital budget.

Some of the more important items to be considered in this category are the following: advertising expenses; special promotional features; opening period activities; cash balances for operations; operating equipment—maintenance and janitorial; operating supplies.

As a general rule of thumb, an appropriation of 50¢ per square foot of rentable floor area for these items will be reasonable. Expenditure may be controlled at a lower figure, but preliminary budgets should make approximately such an allowance. In neighborhood and intermediate centers, this cost might be lower per square foot.

3) Operating Budget. The mechanics of budgetary control of operations will follow usual accounting practice.

This suggested chart of accounts indicates the items that must be considered in the preparation of such a budget.

4)Real Estate Taxes. In attempting to make a shopping center profitable, it is not enough to see to it that tenants pay maximum practical rents. It is also important that expenses be kept at a reasonable minimum. Since real estate taxes under normal operating conditions represent the greatest single expense of ownership, this book would not be complete without a comment on real estate taxes as assessed against shopping centers.

It has become more and more apparent, particularly in the past four or five years, that taxing authorities throughout the country have begun to look on shopping centers as a major source of tax revenues to the extent that in some areas real estate taxes have reached the point of elimination of the normal real estate profit from a successful development. Many developers, as well as the majority of knowledgeable lending institutions, have become very disturbed by this trend. Unfortunately, the taxing authorities have not arrived at any uniform approach to the problem of shopping center assessment. Several commendable attempts have been made by assessors such as Robert L. Miller, C.A.E., now retired, formerly Chief Assessor for the City of Milwaukee, to delineate the problem and adopt assessing procedures which place shopping centers in their proper perspective in the real estate field for taxing purposes.

The major point of this approach is to recognize several principles which are peculiar to the shopping centers as against any other form of real estate. These include:

(a) The fact that a shopping center developer must provide in his development many improvements, such as utilities, lighting, on-site drainage, parking, police protection, fire protection, etc., which are normally provided by municipalities to real estate owners. In shopping centers not only do the owners have to provide these facilities from their own funds, both operating and capital, but the value of such improvements becomes a basis for tax assessment. This in effect amounts to double taxation.

(b) Due to the fact that a shopping center creates practically in one instant a total shopping district, it may take a longer period of time for a retail store in a shopping center to reach its productive potential than is the case for a single store placed in the midst of an existing shopping district. If taxes are levied on stores in a shopping center at their inception at the same level as would be applied against the same store when it comes into being in an existing district, the effect of taxes alone can make the shopping center store so unprofitable as to jeopardize its ability to continue to a more profitable period.

It is important to a developer, therefore, during the period of planning and development, that efforts be made to contact and discuss with taxing officials the plans and problems of development, in order that the taxing authority be given the maximum assistance in preparing material to be used as a basis for the assessment procedure, with a view to establishing a basis for equitable taxation.

PART II–CHAPTER 12

Case Studies

Since planning methods have been discussed in some detail in the foregoing chapters, it should now be both useful and interesting to consider planning and design as expressed in executed projects.

It is, of course, impossible to furnish an over-all planning review of the tremendously large number of shopping centers now in existence, even if the review were restricted to centers built during the last five years. The number of approaches, the infinite variety of solutions, are too great. Three methods are used here in an effort to convey significant data to the reader.

First, a tabulation (see Page 216) drawn up on the basis of information received in reply to questionnaires that were sent out to representative shopping center developers and architects in an attempt to collect basic information concerning the size, parking provisions and planning characteristics of various regional shopping centers. It illustrates the considerable differences in planning and design standards, differences which can be justified, more often than not, by variations in the requirements of individual locations and individual sites. In some cases, of course, there are inherent qualitative differences which are very often reflected in rental income, or in business success, or both.

Second, land usage plans of twenty-three centers, regional, intermediate and neighborhood, drawn to identical scale, and using identical techniques to indicate various land uses (see Page 219). In all of these plans, buildings have been indicated in black; department stores are marked with the letter D; markets, with the letter M; restaurants, with the letter R, and office buildings, with the letter O. Specially marked also are pickup stations P; bus terminals B; taxi stands T; service courts C, and truck roads, represented by a dash line (---). Within the transportation area the number of parking spaces has been indicated.

A comparison of these twenty-three plans gives interesting clues as to the infinity of basic planning solutions, and the great variety in size, compactness and arrangement of pedestrian areas of the shopping center. In some cases, of course, the land usage plan does not properly reflect the size of the rental area because multi-level arrangements of selling areas are not expressed in it. In selecting the twenty-three centers the authors were influenced by the availability of plans and by the general significance of the planning, but not by criteria of quality. Available space being limited, it was impossible to include all significant developments.

The third method is to discuss in greater detail, through word and picture, a dozen significant shopping centers designed by architects prominent in the shopping center field. In many cases, the text used to describe the individual projects was written by the architects in charge of planning and design. In selecting these twelve projects, the authors were again influenced by the significance of the selected centers but also by the availability of plans and photographs. It is obvious that because of the small number which could be included, some excellent shopping centers had to be omitted.

Tabulation of information received on the basis of questionnaires. The data for this tabulation was made available through the cooperation of developers and architects. Inasmuch as a difference in

NAME	LOCATION	OWNER	ARCHITECT	NAME OF DEPT. STORE OR STORES	STATUS OF PROJECT
Bergen Mall	Paramus, N. J.	Allied Stores Corporation	John Graham & Co.	Stern's	Completed
Black Horse	Audubon, N. J.	Penn Fruit Co.	Victor Gruen Associates		Completed
The Boardwalk	Tiburon, Cal.	Belvedere-Tiburon Development Co.	John Lord King		Completed
Capitol Court	Milwaukee, Wis.	Capitol Court Corporation	John Graham & Co.; Brust & Brust, Assoc. Arch.	Ed Schuster & Co. T. A. Chapman	Completed except Blocks C, D, J—Lower Lev. Structure
Cross County	Yonkers, N. Y.	Cross Properties, Inc., Sol G. Atlas, Pres.	Lathrop Douglass	Wanamaker Gimbel's	Completed
Eastland	Covina Area, Cal.	Granada Development Co.	Albert C. Martin & Associates	May Co. W. T. Grant	Completed
Eastland	Detroit, Mich.	Eastland Center	Victor Gruen Assaciates	J. L. Hudson Co.	Completed
Garden State Plaza	Paramus, N. J.	Garden State Plaza Corp.	Abbatt, Merkt & Co.	Bamberger's J. C. Penney Co.	Under Construction
Glendale	Indianapolis, Ind.	Glendale Center	Victor Gruen Associates	Ayres Block's	Completed
Hillsdale	San Mateo, Cal.	David D. Bohannon	Welton Becket & Assoc.	Macy's	Completed
Lloyd Center	Portland, Ore.	Lloyd Corporation, Ltd.	John Graham & Co.	Meier & Frank Co.	In construction
Mayfair	Milwaukee, Wis.	Froedtert-Mayfair	Perkins & Will, Grassold-Johnson & Associates Marshall Field: Loebl, Schlossman & Bennett Gimbel's: Welton Becket & Assoc.	Marshall Field & Co. Gimbel's	Completed
Mid-Island Shopping Plaza	Hicksville, L. I., New York	Stackler & Frank	Lathrop Douglass	B. Gertz, Inc.	Completed
Mondawmin	Baltimore, Md.	Mondawmin Corporation	Mondawmin Board of Design	Sears Roebuck	Completed
Old Orchard	Skokie, Ill.	Old Orchard Business District, Inc.	Loebl, Schlossman & Bennett	Marshall Field & Co. The Fair	Completed
Pala	San Jose, Cal.	McIntyre & Porter	Victor Gruen Associates		Completed
Roosevelt Field	Long Island, N. Y.	Webb & Knapp—Roosevelt Field, Inc.	I. M. Pei & Associates	Macy's	Completed
Southdale	Minneapolis, Minn.	Southdale Center	Victor Gruen Associates	Dayton's Donaldson's	Completed
Valley Fair	San Jose, Cal.	Valley Fair	Victor Gruen Associates	Macy's	Completed
Wildwood	Milwaukee, Wis.	Wildwood Center	Victor Gruen Associates	Schuster's Boston Store	Planning
Waialae	Honolulu, Hawaii	Trustees of B. P. Bishop Estate	Victor Gruen Associates	The Liberty House	Completed

terminology exists regarding parking space and area measurements (see Part II, Chapter 3) the data contained herein cannot be regarded as absolutely comparable. Quoted in round figures, the table

DATE OF OPENING	TOTAL SQ. FT. RENTABALE AREA	TOTAL SQ. FT. RENTAL AREA DEPT. STORE A	TOTAL SQ. FT. RENTAL AREA DEPT. STORE B	NO. PARKING SPACES	NO. RESERVE SPACES
1958	Phase I—1,000,000 Ultimate—1,700,000	300,000	———	8400	None
1955	82,000	———	———	693	
February, 1956	36,400	———	———	136	
September, 1956	793,762 (including Blocks C, d, j when completed)	Present—241,000 Future— + 17,280	Present—63,149 Future— + 12,216	5127	308
1955-56	968,000	208,000	208,000	5200 incl. reserve & unpaved areas	(Included in 5200)
October, 1957	752,000	363,000	42,200	5000	None
1957	899,737	513,000		8300	
Stage I-4/57 Stage II-5/58	1,150,000	340,000	92,000	6300 through Stage II	45 acres
1956	525,000	140,000	117,000	3,365	
1954	702,227	187,000	———	3000	———
Summer, 1959	1,200,000	300,000	———	8490	1888
1958/1959	1,100,000	25% Gimbel's	30% Field's	6000	1000
October, 1956	911,000	300,000	———	6000	2000 undeveloped
October, 1956	475,000	180,000	———	4000	———
1958	918,438	310,000	121,116	6000	1500
1955	38,000			210	3 acres
August, 1956	1,150,000	320,000	———	7000	11,000 (final stage)
1956	670,000	183,000	145,000	5200	4 acres
1957	505,849	152,000		2700	None
Uncertain	698,000	176,000	111,000	4300	850
October, 1958	152,652	76,000		1055	6 acres

Fold out page 218 for lost section of table →

is presented as a useful indication of the basic concepts underlying the design of significant projects and is not represented as a statistically accurate comparison.

HANDLING OF SERVICE TRAFFIC	EXCLUSIVE PEDESTRIAN AREAS	COMMUNITY FACILITIES	ALLOWANCE FOR EXPANSION OF RENT AREA
Underground Truck Road	Malls, Pedestrian Bridge across Highway No. 4	Auditorium, Public Toilets, Meeting Rooms, Medical Building	Yes
Service Courts		No	Yes
Service Courts	Covered Walkways and Court	Public Toilets, Library, Post Office, Christian Science Reading Room, Dining Terrace	Yes
Underground Truck Road	Malls, Courts	Public Toilets, Meeting Rooms	Yes (as described)
Underground Truck Rood for Majority; Service Courts for Minority; Over Curb for Limited Number	Malls	Meeting Rooms	Limited
Underground Truck Road	Malls	——	Yes
Underground Truck Road	Malls, Court		
Underground Truck Rood	Malls, Courts, Public Concourse under Mall	Auditorium, Public Toilets, Meeting Rooms	Yes, to 1,700,000 sq. ft.
Underground Truck Rood	Malls, Court	Auditorium, Post Office, Public Toilets, Meeting Rooms, Restaurants	Yes
Underground Truck Rood	Malls	Public Toilets	Yes
2 Underground Truck Roads, Truck Service Alley & 2d floor System of Truckways with Turntables for Rapid Reversal of Traffic	Malls, Courts, Pedestrion Walks at 2d floor level	Auditorium, Public Toilets, Meeting Rooms, Skating Rink, Spectator Facilities	Yes
Underground Truck Road	Malls, Courts	None	Yes
Underground Truck Rood	Malls, Courts	Small Auditorium, Public Toilets, Meeting Rooms	Limited
Underground Truck Rood	Malls, Courts, Covered Walkways, Arcade, Entranceways	Public Toilets, Meeting Rooms	Yes
Underground Truck Road for Morshall Field; Service Courts for Other Tenonts	Malls, Courts	Professional Building, Restaurants	Yes
Service Courts	Court, Covered Walkways	No	Yes
Underground Truck Rood	Malls, Courts	Auditorium, Public Toilets, Meeting Rooms, Skating Rink	Yes
Truck Rood	Enclosed Air-Conditioned Court	Public Toilets, Zoo, Auditorium, Child Center	Yes
Service Courts	Malls, Court	Public Toilets, Meeting Room, Child Play Center	Yes, to 575,000 sq. ft.
Truck Road	Malls, Court		Yes, to 793,000 sq. ft.
Service Courts	Malls	No	Yes, to 215,000 sq. ft.

See other side of this sheet for plans.

LAND USAGE PLANS OF 23 CENTERS DRAWN TO IDENTICAL SCALE.

0 500

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Lloyd Center,
Portland, Oregon.
Architects: John Graham & Company

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Roosevelt Field Shopping Center,
Nassau County, Long Island, New York.
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Associate Architect: R. C. Brugnani

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Old Orchard Shopping Center,
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Tiburon, California.
Architect: John Lord King

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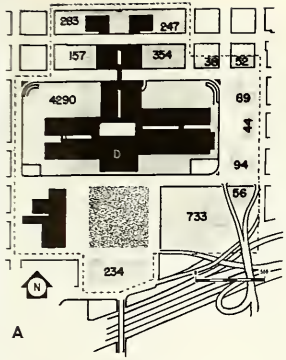
South Bay Center,
Redondo Beach, California.
Associate Architects: A. Quincy Jones,
Frederick Emmons, Victor Gruen

KEY TO PLANS

Parking
Buildings
Parks
D Department Store
M Market
B Bus Terminal
O Office Building
R Restaurant
P Pickup Station
E Elec. & Air Cond. Central Plant
T Taxi Stand
C Service Courts
--- Truck Roads



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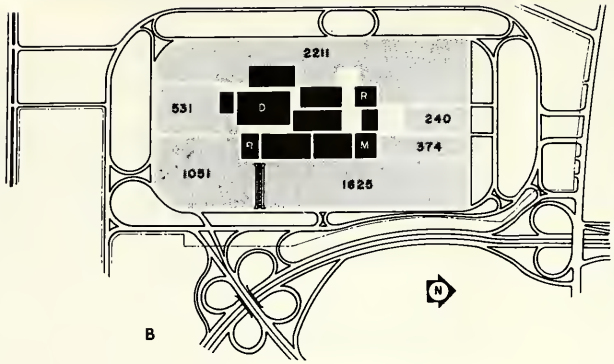

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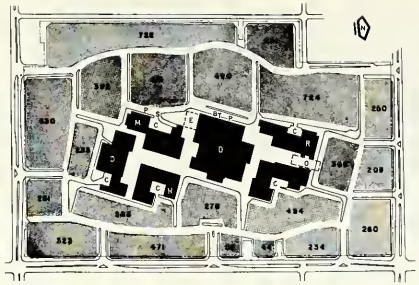

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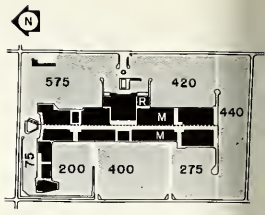

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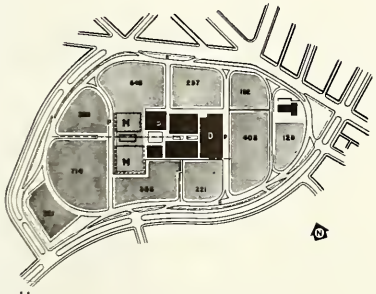

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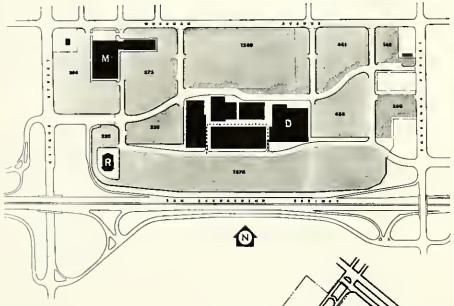

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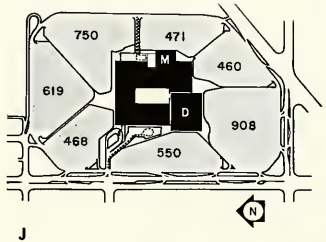

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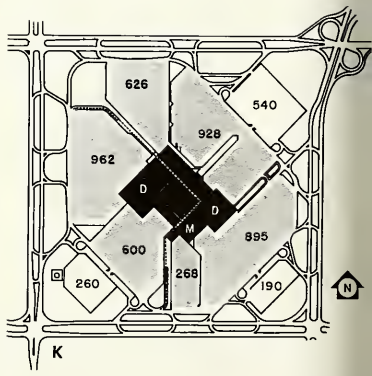

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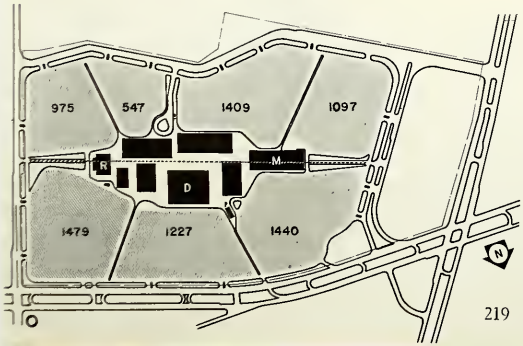

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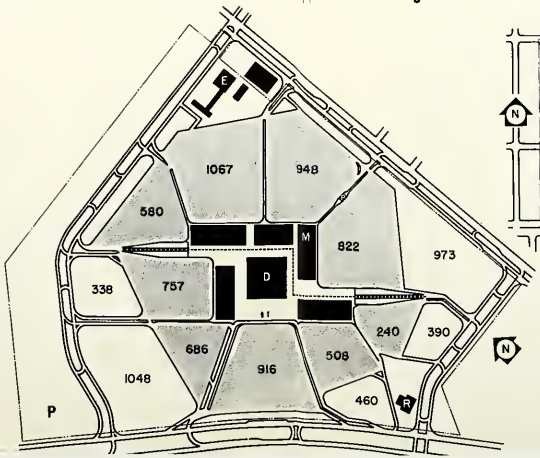

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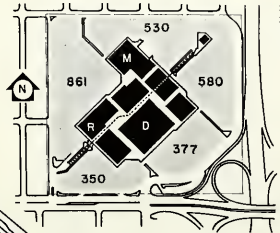

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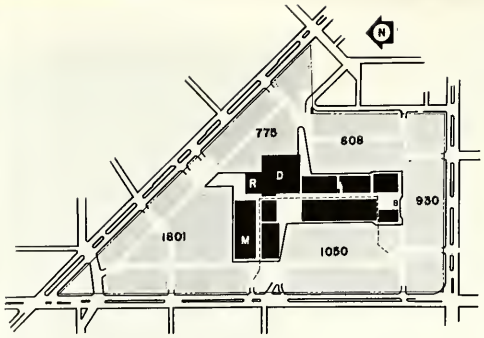

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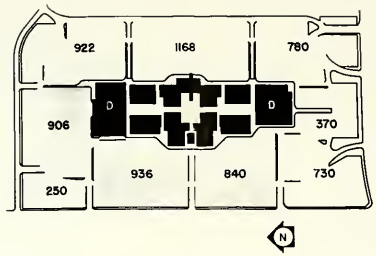

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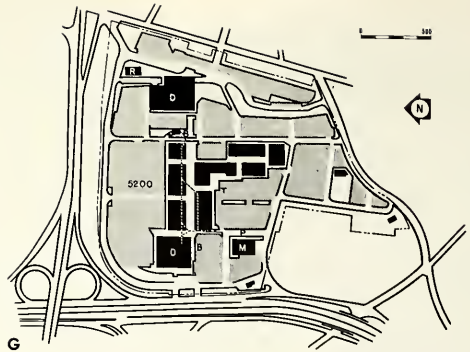

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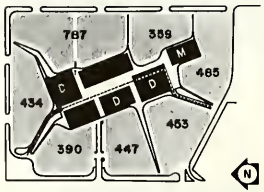

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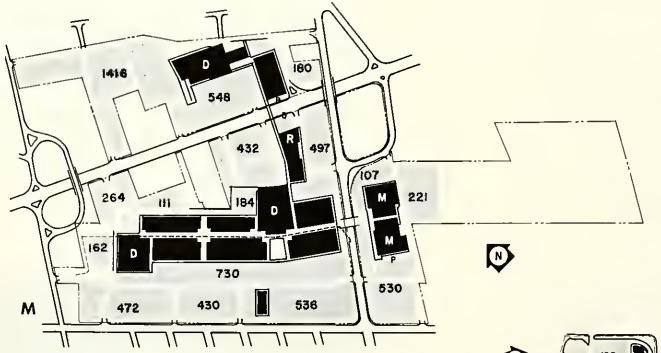

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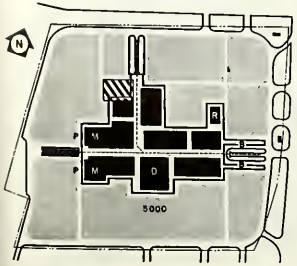

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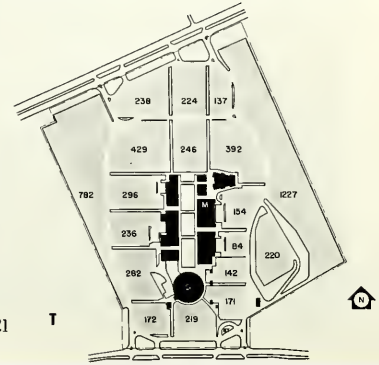

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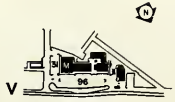

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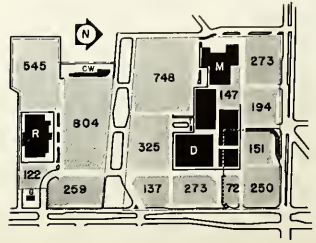

W

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HANDLING OF SERVICE TRAFFIC	EXCLUSIVE PEDESTRIAN AREAS	COMMUNITY FACILITIES	ALLOWANCE FOR EXPANSION OF RENT AREA
Underground Truck Road	Malls, Pedestrian Bridge across Highway No. 4	Auditorium, Public Toilets, Meeting Rooms, Medical Building	Yes
Service Courts		No	Yes
Service Courts	Covered Walkways and Court	Public Toilets, Library, Post Office, Christian Science Reading Room, Dining Terrace	Yes
Underground Truck Road	Malls, Courts	Public Toilets, Meeting Rooms	Yes (as described)
Underground Truck Road for Majority; Service Courts for Minority; Over Curb for Limited Number	Malls	Meeting Rooms	Limited
Underground Truck Road	Malls	——	Yes
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Underground Truck Road	Malls, Courts, Public Concourse under Mall	Auditorium, Public Toilets, Meeting Rooms	Yes, to 1,700,000 sq. ft.
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Underground Truck Road	Malls	Public Toilets	Yes
2 Underground Truck Roads, Truck Service Alley & 2d floor System of Truckways with Turntables for Rapid Reversal of Traffic	Malls, Courts, Pedestrian Walks at 2d floor level	Auditorium, Public Toilets, Meeting Rooms, Skating Rink, Spectator Facilities	Yes
Underground Truck Road	Malls, Courts	None	Yes
Underground Truck Road	Malls, Courts	Small Auditorium, Public Toilets, Meeting Rooms	Limited
Underground Truck Road	Malls, Courts, Covered Walkways, Arcade, Entranceways	Public Toilets, Meeting Rooms	Yes
Underground Truck Road for Marshall Field; Service Courts for Other Tenants	Malls, Courts	Professional Building, Restaurants	Yes
Service Courts	Court, Covered Walkways	No	Yes
Underground Truck Road	Malls, Courts	Auditorium, Public Toilets, Meeting Rooms, Skating Rink	Yes
Truck Road	Enclosed Air-Conditioned Court	Public Toilets, Zoo, Auditorium, Child Center	Yes
Service Courts	Malls, Court	Public Toilets, Meeting Room, Child Play Center	Yes, to 575,000 sq. ft.
Truck Road	Malls, Court		Yes, to 793,000 sq. ft.
Service Courts	Malls	No	Yes, to 215,000 sq. ft.

See other side of this sheet for plans.

LAND USAGE PLANS OF 23 CENTERS DRAWN TO IDENTICAL SCALE.

0 500

A
Lloyd Center,
Portland, Oregon.
Architects: John Graham & Company

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Roosevelt Field Shopping Center,
Nassau County, Long Island, New York.
Architects: I. M. Pei & Associates
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KEY TO PLANS

Parking
Buildings
Parks
D Department Store
M Market
B Bus Terminal
O Office Building
R Restaurant
P Pickup Station
E Elec. & Air Cond. Central Plant
T Taxi Stand
C Service Courts
--- Truck Roads

OLD ORCHARD SHOPPING CENTER, Skokie, Illinois

Owner: Old Orchard Business District, Inc.
Architects: Loebl, Schlossman & Bennett

Consultants: Landscaping, Lawrence Halprin & Associates; Mechanical & Electrical, Robert E. Hottis Engineers; Structural, Alfred Benesch & Associates; Civil Engineering, Joseph A. Schudt & Associates; Traffic Consultants, George Bartan; General Contractors, Island Construction Co.

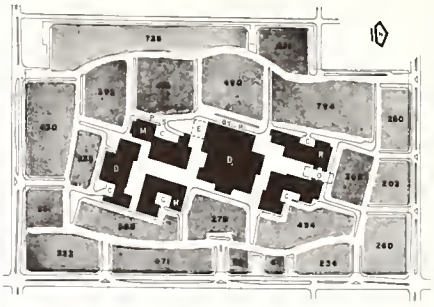
The plan is developed around the main magnet, the large Marshall Field & Co. department store branch. To each side of the department store is a shopping core of which one is anchored to The Fair department store branch, the other to a large professional building. Services are taken care of in well-shielded truck courts.

The outstanding features of this center are the shaping, design and landscaping of the pedestrian areas and the skillful handling of the appearance of the parking areas. The pedestrian areas are organized into spaces of varying scale, shape and treatment. Yet, there is an underlying basic unity and a clearly expressed interconnection of the individual spaces. Pedestrian areas are enlivened by low fieldstone walls containing planting beds, by fountains and a serpentine pool. The buildings are linked by covered walkways.

The parking area has been enriched in its appearance by a large number of sizable trees, parking lot lighting has been integrated with the planning and thus, the usual mechanized appearance of the parking area has here been successfully humanized. Skillfully arranged tall flagpoles proclaim the center to the driving public.

View of office building from one of the small courts.

Informal landscaping in one of the courts.



Landmark sign with symbol near access road.

Photographs: Hube Henry, Hedrich-Blessing

Elongated pond with bridge in main court.

MONDAWMIN SHOPPING CENTER, Baltimore, Maryland.

Owners: Mondawmin Corporation
Architects: Mondawmin Board of Design: Pietro Belluschi; Dan Kiley; Kenneth Welch; Wilbur Smith; Seward Matt; James Rouse; and Fisher, Nes, Campbell & Associates

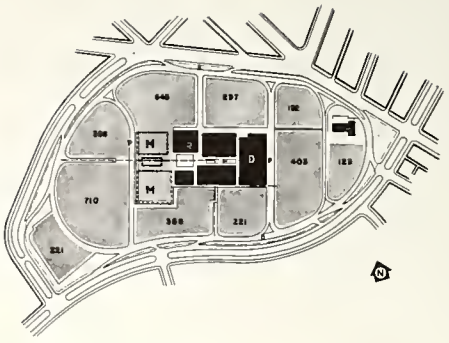
Mr. Charles H. Richter, Jr. of the firm of Fisher, Nes, Campbell & Associates, describes the center as follows:

The basic opproach in planning Mondawmin was to recreate the atmosphere of Baltimore's Lexington Street in a more pleasant, flexible and convenient monner. Lexington Street is a norraw thoroughfare containing many small shops with department stores at each end. We tried to follow this fundamentol criterion in our design. The owners hod set up a building content af 430,000 square feet. The Board of Design suggested a porking ratio of one cor per 100 square feet of rental area. The structure was ta be situoted on a 46 acre site located well within the city limits ond surrounded by important streets. The topography from one end af the site to the other hod a grade difference of 60 feet.

We approached these problems or attributes by first considering a two-level center due ta the extreme difference in grade. This difference in grade also caused our porking ratio to be adjusted. We did not want to exceed a 7% slope in any parking area. If additional parking spaces ore needed, a double-deck scheme will be considered.

Because the center was viewed from a network of important roads, the backs of stores or service areas had ta be eliminated. This was accomplished by hoving double fronted stores and an underground service road.

Our reaction to the completed project is favorable. We are pleased with a two-level center becouse of its compactness and convenient accessibility to all stores. The intimacy of the courts is outstanding. Before construction, we felt thot the smoller anes leading to the department store from the main court were too narrow, but these fears were unfounded. The dimensian from store front to stare front is 52 feet and gives a feeling of pleasant shapping spoce. The concrete circular stair has received favorable comment and shows that such sculptural features are well worthwhile, lending distinction. In the relotion of parking spoce ta shops, the walking distance from parked car to canopy, with the exception of employee parking, was kept to a maximum of 300 feet to prevent shoppers from searching for spoces closer to the stores.



Bird's-eye view with indication of major tenants.

Photographs: Maps, Inc., Blakeslee-Lane, Inc., Sussman-Ochs, Francis DiGennaro

Two-level merchandising in mall.

View from plane of transportation area and shopping core.

Main court with two-level merchandising and stairway connecting lower and upper levels.

HILLSDALE SHOPPING CENTER, San Mateo, California.

Owner: David D. Bahannan
Architects: Weltan Becket & Assaciates
Real Estate Consultants: Larry Smith & Campany

Mr. Jack Whitehouse of Welton Becket's office describes the Hillsdale Shopping Center as follows:

Develapment af the plan involved the best land usage for a rectangular 40 acre site, with existing Sears Roebuck stare and existing market at the sauth end af the praperty, facing the main highway—El Camina Real —with crass streets cutting through the praperty near the auter ends and cannecting ta a residential street running parallel ta the main highway.

The shapping center desired was ane praviding far a department store, farmer's market, 50 shaps af varying sizes, limited affice space, twa banks, a past affice, a service statian and a medical building with undergraund service ta all stores preferred and a minimum parking ratia af 2½:1.

The mall was designed running parallel ta El Camina Real with the majar department stare, Macy's, in the center af the plan, facing the highway. The mall was staggered far interest and, ta break up the lang run, with a small island of shaps lacated where this break accurred.

Parking was pravided far 3,500 cars and may be expanded by dauble decking areas ta the west. The client felt the advantages af the undergraund service autweighed the additional expenditure in excavating far a level site. Alsa undergraund is a central plant far heating and air-conditianing as well as a lawer mall with past affice, insurance affice, beauty salan and assembly hall.

Building area af 750,000 square feet was pravided, with pravisian made far further expansian. The required number af buildings were canstructed af light steel frame, including steel raaf jaists with light-weight gypsum and campasitian raafing. The edge af the projecting canapies are alsa canstructed af painted steel framing, three feet wide, which serves as a backing far tenants' signs.

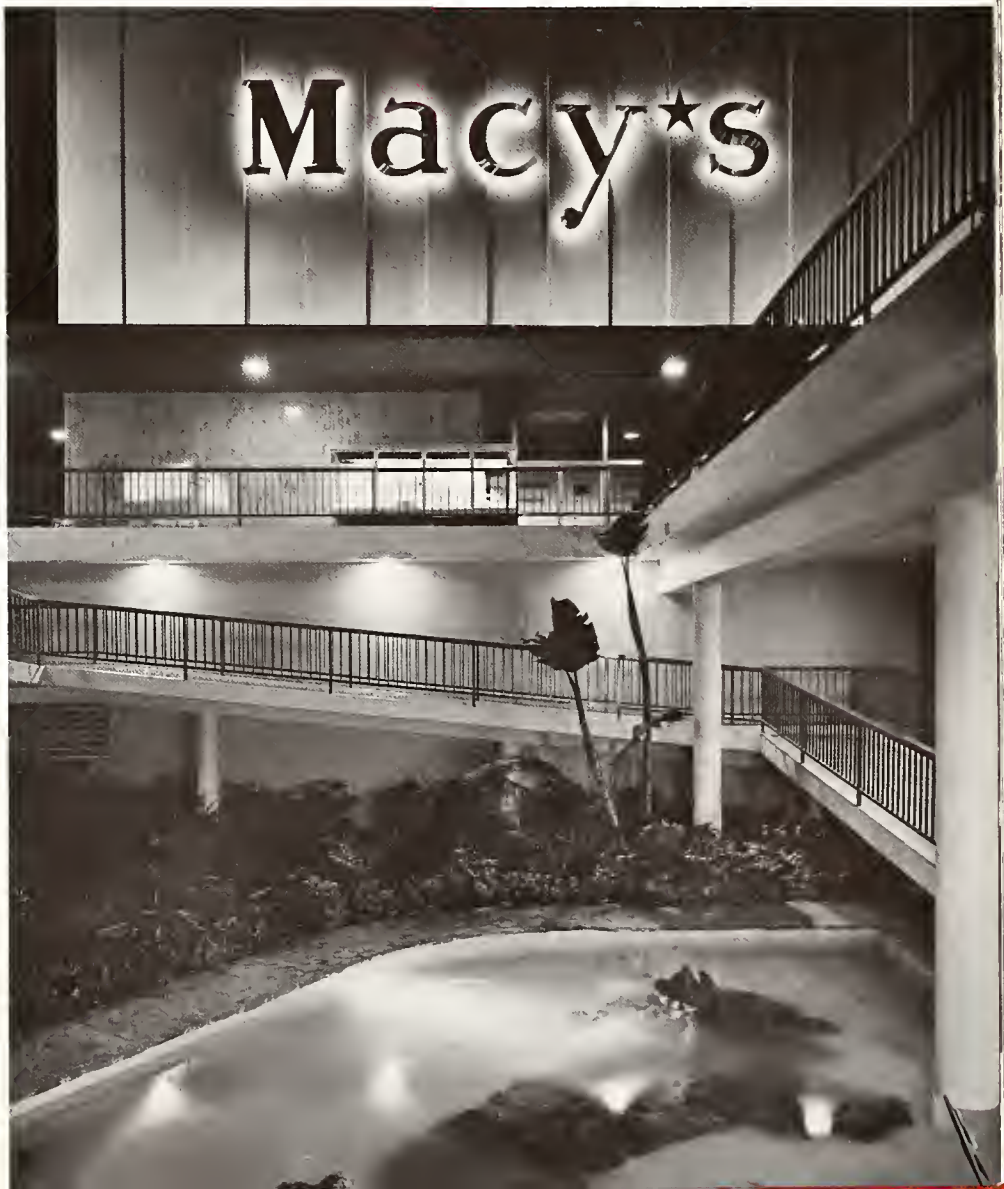
Of unusual interest is a restaurant belaw grade, adjacent ta Macy's, which is appraached by a ramp circumventing a reflecting paal, set in interesting tropical planting. Other landscaping thraughaut the center is cantained in raised cancrete black baxes in the mall areas which alsa feature a permanent exhibit af sculpture by Beniamina Bufano.

Floodlighting of department store front and trees.

Bird's-eye view.

Mall area at night.

Photographs: Herbert Bruce Cross, Moulin Studios



Ramp connecting lower and upper merchandising levels of department store.

EASTLAND SHOPPING CENTER, Detroit, Michigan

Owners: Eastland Center, Inc.
Architects and Engineers: Victor Gruen Associates

Partner in Charge: Karl O. Van Leuven, Jr. Project Director: Raymond O. Brinker. Landscape Architect: Edward A. Eichstedt. Electrical and Mechanical Engineers: Hyde & Babbio, Inc. Civil Engineers: Hubbell, Rath & Clark. Real Estate Consultants: Larry Smith & Co. Traffic Consultant: Lloyd B. Reid. Sculptors: Morris Brose, Joseph Bullone, Marshall Fredericks, Louise Kruger, Mary Callery, Lindsey Decker, Thomas McClure and William McVey. General Contractors: O. W. Burke Co. and A. A. Smith Co. Mechanical Contractor: Donald Miller Co. Electrical Contractors: John H. Busby Co. and F. J. O'Toole Co.

Eastland Shopping Center, in the Detroit area, is an illustration of how factors other than those inherent in site or location may exert strong influence on planning and design. In this case the planners were faced with an unusual range in trade population. How they met this problem and turned it to the advantage of the shopping center is interestingly brought out in an article titled "Three Successful Shopping Centers" that appeared in the *Architectural Forum* of October 1957, in which a parallel is drawn between Eastland and its sister shopping center, Detroit's Northland. We quote from the Forum article:

Eastland has the same backer—the J. L. Hudson Co.—as Northland, same architects, same main store, many of the smaller tenants, is almost the same size (a million sq. ft.) and almost the same distance from downtown Detroit (eight miles). Its basic planning and facilities are the same, too.

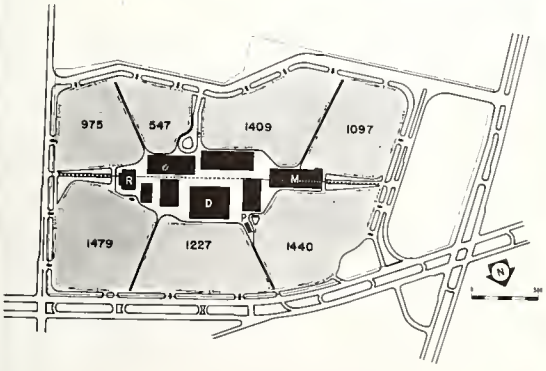
But Eastland is no carbon copy of Northland, largely because of difference in clientele. Eastland's trade population is not the middle class of Northland's. Instead, it includes Detroit's highest income population—the Grosse Pointe people—and a large segment of relatively low-income families. Eastland, like the city downtown, is built for both, the first shopping center to attempt such a spread. This has affected the scheme in major respects.

Merchandise planning: Eastland has, for example, at the high end of the scale, a women's specialty store, Siegel's. It is higher priced than any Northland store, much bigger than its nearest equivalent there, and in its own distinctive building. At the other extreme, Eastland has a very low-priced specialty store three times as large as its nearest Northland equivalent. Hudson's at Eastland includes both the high-style, high-priced Woodward Shops of the parent store and a full, popular-priced basement store with its own entity emphasized, neither of which is true of Hudson's Northland. Similar leaning toward one end of the income scale or the other can be found among many other tenants.

Appearance: Here the distinction is subtle but very real. Eastland—just as handsomely built, planted and equipped as Northland—is, however, more informal, looser. This is partly a matter of more curves in the landscaping, but also because four of the main tenants — Hudson's, Siegel's, Stauffer's and Kroger's — are in buildings each with its own separate character. The informality works hand-in-glove with the policy of pulling divergent publics. The last thing Eastland's owner and architects wanted was to make customers conscious of class distinctions, and in the ordered informality of Eastland the differences between the grander and less grand tenant groupings do appear as perfectly casual incidents of physical arrangement and architectural variation. It would take an acute observer indeed to sense the provision for different publics.

Site planning: The differences here arise from Eastland's longer, narrower site, which determined a cluster more elongated than Northland's tighter, centralized grouping. But again, this works hand-in-glove with the aim of freer architecture.

View of shopping core and bus terminal from parking area.



Photographs: Alexandre Georges

View from one of the arcades towards mall.

BLACK HORSE SHOPPING CENTER, Audubon, New Jersey.

Owner: Penn Fruit Co.
Architects: Victor Gruen Associates
Partner in Charge: Ben Southland

This is a neighborhood shopping center organized around the main magnet of the 44,500 sq. ft. Penn Fruit Supermarket. Tenant stores are arranged to either side of the market. Parking is located in such a manner as to be most easily accessible from the two main roads. All service traffic approaches from the rear and all loading and unloading functions are taken care of in a central service court.

It was the owner's desire that the design for the market itself should establish a prototype for further development of the chain. (In fact, a large number of Penn Fruit markets generally following this prototype design have since been constructed.)

Of particular interest is the integration of parking area lighting standards with feature signs for the center and the supermarket. Special attention was given to the design of all graphic expressions. It was possible, however, to keep all signs within a comparatively modest size, as the characteristic shape of the structure itself acts as a landmark.

Main body of the building is covered by means of laminated wood arches which, in the front portion of the market, rest on reinforced concrete buttresses just above grade.

Market lobby.

Exterior view of market and adjoining stores.

Photographs: Lawrence Williams

Plan of neighborhood center.

Florist.

Night view.

THE BOARDWALK, Tiburon, California

Owner: Belvedere — Tiburon Development Co.
Architect: John Lord King

Landscape Architect: Thomas D. Church. Structural Engineer: Isadore Thompson. Mechanical and Electrical Engineers: Keller & Gannon. Civil Engineers: Punnett, Parez & Hutchison. General Contractor: Sharp & Robinson.

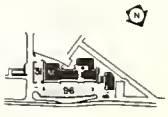
The owner and architect of this 45,500 sq. ft. shopping center had many aims in common with the owner and architects of the giants in the preceding pages (i.e. Northland and Eastland), and the results show in the little center as surely as in the big ones.

So the Boardwalk would be a preserving, not blighting, influence — and at the same time be fun to come to — its character is that of a well-bred resort, complete with outdoor cafe and a second-floor auditorium much used by amateur theater groups. Consideration for the neighborhood extended even to deeding adjoining home owners wide, planted back-yard buffer strips, with a maintenance agreement by the recipients. The site is a silted-in lagoon; the wood-decking scheme, on concrete pad footings, turned the foundation problem into an asset.

In merchandise planning, the owner broke some rules — for sound local reasons. He put fabric and furnishing shops in so small a center because these were well-established outlets for local artisans, well patronized by a growing population of young families. He also exceeded the 30,000 sq. ft. area which an economic study pegged as advisable, and business has justified him. Soon after the opening in Feb. 1956 every tenant was paying above the guaranteed minimum; they are doing 20 to 25% higher per sq. ft. than forecast, in spite of the 50% increase in size.

Architectural Forum
October 1957

Bridge from parking area to shopping core.



Plan of neighborhood center.

Market exterior.

Gas station.

Pedestrian court.

CAPITOL COURT SHOPPING CENTER, Milwaukee, Wisconsin.

Owners: Capitol Court Corporation
Architects: John Graham and Company, New York and Seattle
Associate Architects: Brust and Brust
Real Estate Consultants: Larry Smith & Company

This center was developed on an L plan, necessitated by the triangular shape of the site. The Ed Schuster & Co. department store is situated where the two arms of the L meet. One arm of the L is anchored to the large Chapman specialty store, the other to the supermarket. The planning of the parking area was influenced by a desire to satisfy the heavy parking requirements of the food stores while, at the same time, keeping them separate from the shopping goods, the convenience stores and the department store. Services are handled by an underground truck road.

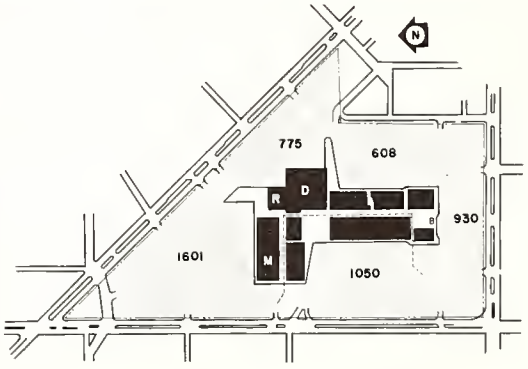
Pedestrian walks are protected by wide overhangs and/or colonnades. The center is presently being enlarged.

Colonnade in front of department store.

Mall area.

Bird's-eye view with indication of main roads.

Front treatment of large specialty store.



Covered walkway. (Note information signs placed near windbreaks.)

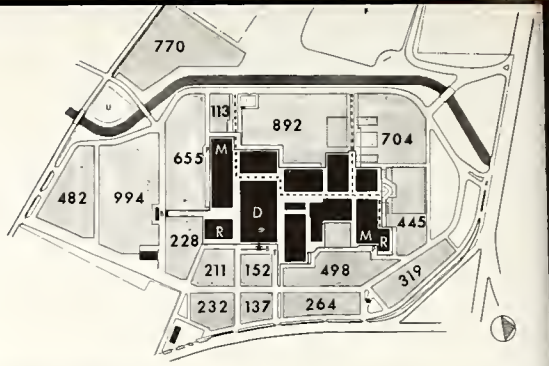
GARDEN STATE PLAZA, Paramus, New Jersey

Owners: Garden State Plaza Corporation
Architects: Abbott, Merkt & Company
Real Estate Consultants: Larry Smith & Company

In the planning and design of this shopping center a number of difficulties had to be overcome. A brook had to be re-routed, accessibility had to be improved in cooperation with the highway department, and difficult foundation problems had to be solved. The center was designed for future expansion and since the opening day in 1957 the expansion has been carried forward in a planned fashion. The addition of a second department store (Gimbel's) is now under way.

The first stage of the center development is organized in cluster-like fashion around the large Bamberger store branch. An interesting feature of the center is the Arcadian Gardens, an establishment selling plants and garden books in a supermarket merchandising fashion. The owners control considerable areas around the center for which, at the present time, land usage plans providing office buildings, medical buildings, laboratory and research structures, etc. are under way. Pedestrian areas are strictly separated from transportation areas and all service activities are taken care of in the basement, accessible by underground truck road.

When completed, this will be one of the largest regional shopping centers.



Entrance court.

Bird's-eye view.

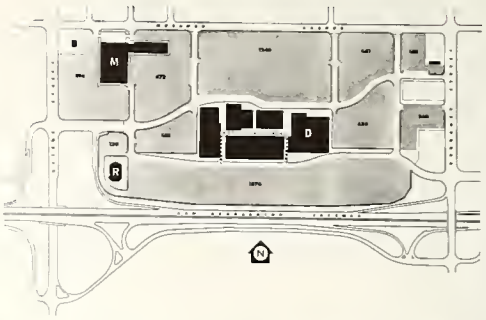
Mall area.

Bamberger's *department store.*

Photographs: Felix Gilbert, Bucky McDonnell

EASTLAND SHOPPING CENTER, West Covina, California

Owners: Granada Development Co.
Architects: Albert C. Martin and Associates, Architects and Engineers.



The natural topography lent itself readily to a two-level scheme with the lower level directed toward the Freeway. Thus, the shopping goods stores were arranged in a compact block of two-level shops in the center of the site. A self-service drugstore was set next to the market, since these two units remain open nights when the rest of the center is closed.

The lower parking area was brought into close intimacy with the mall by an outdoor "up" escalator at the westerly end of the mall. A free-standing family restaurant was located so as to be easily seen from major access roads.

One of the difficulties which had to be overcome in this project was that a brook, the Charter Oak Creek, divided the site into a northerly and a southerly portion. At a cost of approximately $180,000 this was re-routed into a 1300 foot long concrete channel.

The mall was regarded as the focal point of the design. Special features in this pedestrian area are the metal space frames with colored plastic panels which span it at intervals. The malls are generously landscaped, the parking area is enlivened by several jacaranda trees which existed on the site, and a row of palm trees which also existed were relocated in a random pattern throughout the parking area.

The main mall.

View of shopping core from parking area.

Steps to mall level.

Detail near May Co. department store.

Bird's-eye view.

Photographs: Kelly-Holliday, Victor Haveman

LLOYD CENTER, Portland, Oregon. (In construction)

Owners: Lloyd Corporation, Ltd.
Architects: John Graham & Company

Real Estate Consultants: Larry Smith & Company
Traffic Consultants: Harland Bartholomew & Associates

Lloyd Center is not a suburban but an urban regional shopping center. It is located within the downtown area of Portland, Oregon, separated from the existing business core by a river. Driving time from the heart of the downtown area is only six minutes. Besides shopping facilities, it will contain a 300-room hotel adjoining an already existing large office building (Bonneville Power Administration Building).

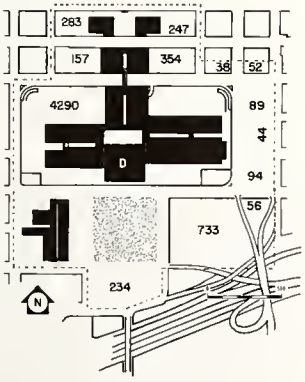
The air-conditioned, reinforced concrete buildings are arranged in the form of a huge T. A branch of Meier & Frank Company department store is situated where the three wings of the T meet. Parking as well as merchandising is multi-level.

In the malls, shops will be protected from inclement weather by covered walks, balconies and overhangs. Parking space for 8,500 cars will be provided. Completion of this center is expected in 1960.

It is interesting to note that the economic realities of a downtown location with its high land cost has decisively influenced the design of this center, necessitating greater compactness and therefore multiple-deck parking and merchandising which would be neither necessary nor feasible in most suburban locations.

Bird's-eye view. *Photograph : Roger Dudley*

Meier and Frank Co. department store.



Supermarket.

Mall with two level merchandising.

ROOSEVELT FIELD SHOPPING CENTER, Nassau County, L. I., N. Y.

Owners: Webb & Knapp
Architects: I. M. Pei & Assaciates

Project Staff: O. Aftreth, A. P. Moore, J. LoPinto, A. Candido Graphics Head: Don Poge. Associate Architect: R. C. Brugnoni General Contractor: George A. Fuller Co. Consultonts: Structural, Severud-Elstad-Krueger; Mechanical, Syska & Hennessy; Special Lighting, H. Abe Feder; Londscape, Robert Zion; Traffic Engineers: Wilbur Smith
Market Analysis: Larry Smith & Company

Architect I. M. Pei says:

The site plan is essentially a free-flowing ring surrounding a central building group. The stores form a compact cluster, minimizing walking distances and heightening cumulative drawing power. The relatively narrow malls encourage cross shopping, double the presentation of merchandise, and heighten the impression of activity. The shopper's route leads him through streets of different widths and varying architectural treatments, affarding a variety of experiences. Trees, flowers, music, fountains, gay awnings, and bold use of graphic art combine to make the retoil atmasphere. Variety of store front design along malls was encouraged.

Store fronts facing porking areas ore designed by the center architect to give the impression af a plonned center, yet provide tenant identificotion. A modular system of dark-brown steel fromes, rough-faced aff-white brick and glass was used. Within this system, eoch store was given individuol treotment.

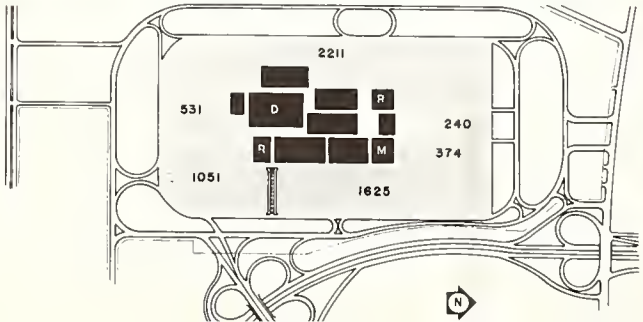
Architectural Record
September 1957

One of the mall areas.

Significant features of this center are: the great amount of attention given to graphic design, the achieving of color and movement by fountains, flags and banners, the introduction of kiosks used for advertising and selling concessions.

The center is presently being enlarged by the addition of a department store branch (Gimbel's) on the extreme opposite end of the double mall from the existing branch of R. H. Macy.

Store front treatment in multiple-tenant buildings.



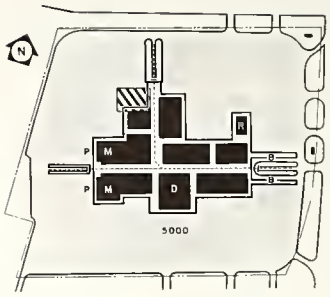
Merchandising plan.

Fountains in mall area. *Photographs: Ezra Stoller, Frederick J. Mi*

Mall portion.

MID-ISLAND PLAZA, Hicksville, L. I., N. Y.

Owners: Stackler & Frank
Architect: Lathrop Douglass
Market Analysis: Lorry Smith & Company



Architect Lathrop Douglas states:

The square level site has a principal highway on one side only; other major highways are a few blocks away. The site plan had to provide for an original department store and also for a possible future one, hence the T-Mall plan. Unexpected problem: the five story height of the Gertz Store accentuated the wind velocity in the Mall. Colored plastic lattices subsequently placed over portions of the Mall reduce the wind velocity while adding visual interest. The dominance of the five story department store has proved very advantageous in giving scale to the project. The compact plan and simple 50' wide Mall arrangement gives the shopper an easy grasp of where she is going and what stores are in the project.

Parking is at 90° with two way lanes and roads throughout, making it easy for shoppers to go directly where they want to go.

Mall view.

Mall near Gertz department store.

Entrance to truck road.

Bird's-eye view.

Photographs: Fairchild Aerial Surveys, Inc., Gottscho-Schleisner

PART III

THE COMPLETED CENTER

The inherent potential established by the prerequisites and developed by planning must be fully utilized.

PART III–CHAPTER 1

Opening and Promotion

The future of a new shopping center is bound to be influenced by the manner in which it is introduced to the public. The opening is an important event and calls for imagination as well as careful planning. During recent years a great number of shopping centers, varying in size, have been opened throughout the country with ceremonies ranging from the quiet, unobtrusive type involving the opening of a few stores at a time, to mass opening ceremonies lasting several days and featuring various kinds of attention-getting promotion.

Two inherent dangers should be borne in mind in planning the opening. First is the danger that the tremendous number of buyers and shoppers and the even greater number of observers who will arrive on opening day may overtax the various facilities of the center, causing confusion all around. People arriving by car would then have to wait in line; others would be unable to find parking space; crowds in malls, courts and stores might be uncomfortably large and eating facilities overburdened.

On the other hand, there is the danger that too few people will know about the opening of the center and that those who do come will be disappointed by the lack of vitality and excitement ordinarily engendered on such an occasion. The effect on retailers of such a discouraging lack of business during opening days is too apparent to need further comment.

Opening Day at Mondawmin Shopping Center, Baltimore, Maryland.
James Rouse with Governor Theodore R. McKeldin.
Photograph: Sussman Ochs

The opening of a large regional shopping center, if properly publicized, can be an event of interest to the entire metropolitan area. In that case, the spreading of opening ceremonies over a number of days is to be recommended. Each day may be given special importance through the issuance of invitations to different segments of the population. The first day, employees of all stores might be invited to attend with their families. In this manner employees gain familiarity with their new surroundings before starting to work. Experience has shown that to schedule an "Employees' Day" first has the additional benefit that some of the operational difficulties can be discovered and remedied before customers arrive. The second day might be "Press Day," including a dinner or cocktail party for representatives of the local and national press, a conducted tour and a presentation to the press of the history, special features and principal tenants of the center. This event establishes an excellent basis for future relations with newspapers and other periodicals. The third day could be "Neighborhood Day." On this day the center is opened to residents of the immediately surrounding area who have been invited either through announcements in local newspapers or by direct mail. The fourth day is then the official opening day for the general public, well advertised, and very often accompanied by special events. However, in cases where the center itself provides enough intrinsic interest, it might be advisable to postpone the holding of special events for the future, since the desire to see the center in itself will attract a sufficient number of people.

Inasmuch as a successful shopping center is the product of integrated planning, it is recommended that the large majority of stores be ready for business on opening day.

Press preview at Southdale Center, near Minneapolis. Photograph: Anthony Lane

Cover of press kit issued to all reporters at Southdale Center at Press Day ceremonies.

If this is not the case, customers who expect a complete shopping environment will be disappointed and pedestrian shopping traffic will not function as planned. As a result, business success will be spotty. Furthermore, continued construction work, with its accompanying noises and hazards, will interfere with shopping activities. Small tenants, especially, are apt to suffer serious financial difficulties during early months of operation if the center is opened on a piecemeal basis.

For these reasons, most shopping center operators and planners agree that mass opening (at least 75 per cent of all tenant spaces at the same time) is necessary if the center is to reap the full benefits of the planning effort. Mass openings offer the opportunity to establish the center from the outset as an entity in the minds of both potential customers and tenants. Though the benefits of a mass opening undoubtedly accrue to the center as a whole, those who benefit most are, perhaps, the smaller tenants who depend to a greater or lesser degree upon the rest of the center and for whom the first months of operation are most critical. They are the ones who are in greatest need of the initial stimulus that is supplied by the mass opening.

In order to achieve an effective mass opening, the stage must be set early in the planning and construction phase of the shopping center. The opening date will have to be established during the leasing negotiations with major tenants on the basis of established retail practices. Thus, certain periods of the year during which increased pressures on business occur, such as the Christmas and Easter seasons, will be eliminated as likely opening dates. Many developers and merchants believe that it is advantageous to open in a comparatively quiet business period. In this respect, Mr. Horace Carpenter, Vice President of Northland and Eastland, states, "The ideal time to open a major regional shopping center is the dullest business season of the year." Any opening later than the middle of October, for example, would be dangerous as it would expose inexperienced help and untried facilities to the sudden seasonal onrush of pre-Christmas shoppers. In Part II, Chapter 2, we have stressed the importance of setting up a reliable and reasonable schedule which would provide an ample period of time for the training program and for the fixturing of the individual stores. Only if this is done will an effective mass opening be possible.

Openings, in order to be effective, must be publicized for many weeks before the actual event. This is accomplished through articles in the local press dealing with various outstanding features of the new center, its tenants, location, etc. If possible, these should be illustrated with photographs of construction work, or with sketches showing some of the architectural features.

Even with the most careful scheduling, some of the stores will probably not be completed by opening day and a few, perhaps, not even leased. These unfinished spaces could present an unsightly appearance, especially since they may very well lie between active, open stores. It is recommended

Opening Day. Parade through shopping mall.
Photograph: Ed Miley, St. Paul

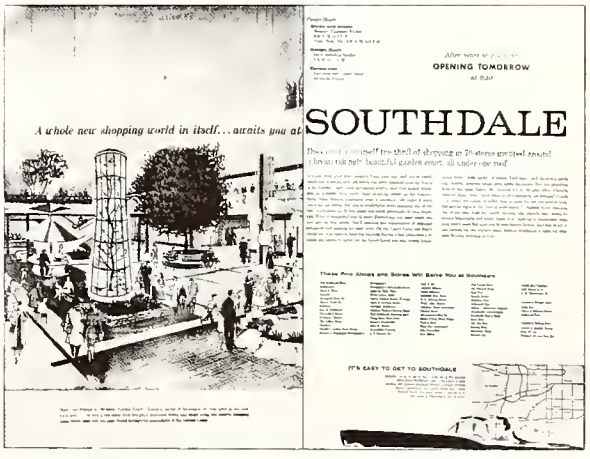
Eastland Center News
Progress Report No. 3—Pre-opening Announcements
Opening Day Scheduled for late July
as Completion Details are Settled

Opening publicity. "Mast" of Eastland Center was distributed regularly to inhabitants of surrounding area many months before opening.

therefore that such tenant spaces be enclosed attractively with temporary plywood partitions which could carry the name of the future tenant and an announcement of the approximate opening date. This should follow a general pattern that will insure consistency in size, color, etc.

There are, of course, exceptional situations in which a mass opening cannot be implemented. There might, for example, be a competitive situation which would make it essential that the major store or a portion of the center be opened as quickly as possible, or a sudden, unfavorable leasing market might develop, making it difficult to secure tenants. It might then be in the interest of the developer to open the portion of the center that has been leased. However, it is still recommended that the developer proceed in his leasing and scheduling arrangements along lines that would make a mass opening feasible. Should circumstances develop which preclude a mass opening, then the developer has at least retained a choice between opening piecemeal or accelerating the development schedule to conform to a mass opening date.

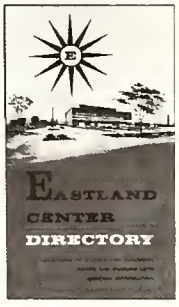
During the first weeks of a shopping center's operation, it is visited by tens of thousands of people who are still unfamiliar with the new environment. They usually experience difficulty in ascertaining the best access routes to the center, in getting to the proper parking areas and spaces, and in finding their way around once they have entered the shopping core. For this reason, it is important



Opening Day ad for Southdale Center, near Minneapolis.

Incomplete tenant spaces are attractively enclosed in Valley Fair, San Jose, California.
Photograph: Morley Baer

Cover of information booklet concerning bus transportation. Eastland Center, Detroit.



Cover of information booklet concerning location of stores, buildings, roads and parking lots. Eastland Center, Detroit.

to have prepared, for dissemination on opening day, a directory in simple and understandable form containing all pertinent information. It might include, though not be limited to, the following: a map indicating bus routes to the center; information about automobile approach; how to find the parking lot nearest to the stores one wishes to visit; parking lot and parking lane identification; a listing of all stores with a map showing their location; a map indicating by name the various public spaces, like malls and courts; a listing of all public facilities such as auditorium, community center, public toilets, police office, special events building, pick-up stations, etc.; information concerning business hours, night openings, and so on.

Information of this type should be posted throughout the shopping center in areas specially designed and reserved for this purpose. It should also be disseminated in leaflets distributed to the shoppers, or mailed in advance, or both. Some of the information might be published in the daily newspapers, especially in the opening day ads.

Because difficulties in connection with traffic and directions will be most apparent in the first weeks of the center's operation, it is essential that all signing, traffic signalling, parking lot lighting, etc., be completed before the opening date. Postponement of the completion of these features will lead to confusion during the opening days and might have a discouraging effect on the many who will visit the center during that time.

Cover and one page of brochure distributed to shoppers. Garden State Plaza, Paramus, New Jersey.

Cover and page of brochure distributed to shoppers. Roosevelt Field, Nassau County, L. I., New York.

PART III–CHAPTER 2

Merchants' Association

It is a nationally recognized tenet of shopping center operation that group or joint promotion by the tenants is vital. The Merchants' Association of a shopping center is an outward expression of this. However, opinions differ about the best method of achieving tenant cooperation in implementing joint needs.

The first thing to be decided is whether membership in the Merchants' Association is to be made mandatory; then it becomes necessary to outline and delimit the scope of activities and power of the proposed Association.

The first question, that of the desirability of mandatory membership, has never been completely resolved. While developers of some of the earlier shopping centers voice the opinion that mandatory participation is a necessity (or that they wished that such had been the case in their particular center), it has become evident that some experienced tenants are opposed to signing a lease which contains mandatory membership in a Merchants' Association as one of the conditions of the lease. Paradoxically these same tenants agree that joint promotional effort is necessary and state that they fully expect to contribute to such activities.

Since controls on the activities and expenditures of the Merchants' Association cannot be properly defined during the leasing stage, experienced tenants object to being required to agree to an open-end commitment as a condition of the lease. In some cases a workable compromise has been evolved which gives the association a substantial start and encourages full participation. It eliminates the necessity for prolonged negotiations over the question of mandatory membership by including the following clause in the lease agreement:

> The tenant agrees to cooperate in forming and maintaining an effective Merchants' Association among the tenants of the shopping center and to use its best efforts to develop a promotional and public relations policy.

Such a clause makes it unnecessary to discuss promotion costs or activities of a proposed Merchants' Association during the lease negotiations, but leaves the way open for the owner to initiate the organization of the group at a later time, just prior to, or after, the opening of the center.

It is considered desirable that the Merchants' Association be organized prior to the mass opening of the center; the opening activities can then be planned by the association and some costs distributed among its members. However, more often the practice is to organize the association as soon as possible after opening.

It will probably be up to the owner to activate the association to the extent of either proposing a program and budget, or getting together a group of tenants to do this. A method of assessment and voting must be devised for approval by the association at this early stage. It is also necessary to establish the framework for the permanent functioning of the group by drafting a proposed constitution or articles of incorporation and by-laws. If tenant

Meeting of Merchants' Association.
Photograph: Courtesy Chain Store Age.

participation is not a mandatory requirement of the lease it is likely that some tenants will not join at first. Experience has shown however, that if the first promotional activities of the Merchants' Association are well conceived and conducted, the hold-out stores soon become interested in supporting group promotion.

The financial structure of the Merchants' Association varies with the individual organization involved, but each includes a basis for tenant assessment and for controlling the expenses incurred by the group. In most instances, the owner contributes to the expenses of the association — usually about one-third of the total budget. The remaining two-thirds is prorated among the tenants. The Merchants' Association of one regional center assesses its members ten cents per square foot of selling area. Several centers use a formula which provides that each tenant pay a pro rata share calculated on the average of the following three figures: 1) Ratio of tenant's gross rented area to total rented area of the center; 2) Ratio of tenant's sales area to sales area of the center; 3) Ratio of tenant's annual rent payment to total rent of center.

While this formula is more complicated than some of the others in use, it permits the productivity, as well as the size, of each tenant to be taken into account in the assessment. Still another method is to share the first 35% of the budget equally among the tenants with the remaining 65% prorated on the basis of rented space. Promotion budgets vary from center to center, but most fall within the range of 7-15 cents per square foot of rented area.

The typical Merchants' Association is organized with a board of directors which administers its affairs and works with the project management or its agents in devising the promotion programs and, in general, sets the pace of the association. The board of directors is usually elected by the membership, which reserves the right to approve its proposals. Experience has shown that a Merchants' Association operates best where management assumes an active but indirect role — active to the extent of providing assistance, but indirect in that the tenants are permitted to "run their own show." The amount of assistance provided by management is an individual matter, but it usually includes help in planning the promotion program, staff and secretarial assistance, and the use of center equipment and facilities. In some instances the manager, or a member of his staff, occupies a position on the board of directors while in other cases management is completely in the background. The degree of management participation should be governed by the wishes of the group and should be in the form of cooperation, sponsorship and support, rather than of directing the association and its activities.

While the primary purpose of the Merchants' Association is to engage in collective promotion of the center, it can benefit the center in many other respects. The scope of activities undertaken by Merchants' Associations varies, of course, but most do not confine themselves to promotional efforts. In some centers it determines the hours of operation. Sometimes the Association can be more influential than the owner in securing favorable treatment in matters such as public transportation, street lighting, police protection and the like. It can also be of assistance in gaining acceptance and enforcement of various policies and regulations affecting the operation of the center, such as parking regulations, sign control, merchandising practices of the tenants, and related matters. In this manner the Association can be a clearing house for tenant problems, while the owner's enforcement problem can be lessened to the extent that the group is able to exert control over the individual members.

Benefits that are less tangible, but equally important, often result when the Merchants' Association is a "going concern" with center-wide participation. An active and effective Association composed of all the tenants of the center may provide the means for bolstering sagging individual tenant morale, creating pride in the appearance and character of the project and cultivating esprit de corps among the tenants, which, in turn, contributes to the stability, character and atmosphere of the shopping center.

PART III–CHAPTER 3

The Use of Public Areas

The broad aspects of operating and management will not be covered in this book except to point out that the problems of general management, maintenance and upkeep in a shopping center more or less follow the principles governing good real estate practices. Nor do we concern ourselves here with the usual problems connected with merchandising operations and merchandising methods; these are primarily the concern of the individual tenant rather than of the shopping center operator. However, it should be emphasized that the highest possible type of merchandising operation on the part of each tenant is essential to the well-being of the center as a whole.

Inherent in shopping centers, however, are certain operating and management problems which do not occur in ordinary real estate operations. Planning which follows the principles outlined in Part II creates not only stores and the buildings in which they are located but also public areas in the spaces between and around these buildings. It also brings into being community facilities, such as auditoriums and meeting rooms. This is done with the express intention of creating an environment which, if properly utilized, will establish the shopping center as the focal point for the life of a community or a number of communities. In order to take advantage of the opportunities thus opened up, shopping center management must act with imagination and with a high degree of organizational ability.

Since there is no large body of common experience, such as exists in older types of property management, to provide guidance along these lines this aspect of shopping center activity merits further discussion.

Obviously, those organizations and individuals who, over many years, have managed and operated shopping centers which provide public spaces and community facilities have acquired considerable experience and knowledge in this respect. Such developers and executives have provided the source material on which further comments are largely based, and include: Willard A. Brown, Vice President of Arthur Rubloff & Company; Horace Carpenter, Jr., Vice President and General Manager of Northland Center, Inc. and Eastland Center, Inc.; William Crear, Jr., Executive Vice President of Southdale Center, Inc.; James B. Douglas, President of Northgate Center; James W. Rouse, President of Community Research and Development, Inc.; and Don Curtiss, Merchandising Manager of *Redbook*.

The activities we speak of take place in courts, malls — whether open to the sky or enclosed — in auditoriums and community centers. It will be seen that while many of these activities follow a fairly standard pattern, others, because of opportunities offered by special features of the individual center, have a unique quality.

Horace Carpenter points out that these activities fall into two large categories, the first being cultural, educational and recreational in character, the second having a merchandising function. Under the first heading we find such events as concerts, art exhibits, square dancing, entertainment for children, ice skating, theaters, etc. Under this heading we would also group facilities afforded to the community, in auditoriums and community centers, for club and other civic group meetings, church functions, weddings and similar events.

Merchandising activities embrace such events as the

Fashion show at Southdale Center near Minneapolis.
Photograph: Anthony Lane

celebration of Father's Day, Mother's Day, Christmas; model home and sports shows, fashion shows, dollar days and the like.

Concerning the whole field of special activities carried on by the shopping center, James W. Rouse has this to say:

I would like to underscore our conviction that we consider good live promotion essential to a successful center. One of the great opportunities of a shopping center derives from the fact that it fits into the way of life of its shoppers in a manner that downtown and the old suburban centers can seldom, if ever, accomplish. The integrated plan, the convenience, the easy, casual, relaxed atmosphere of the shopping center constitute a special opportunity for effective promotion. The integrated ownership makes it easy for the shopping center to organize a thoughtful promotion program. Together, these factors of planned ownership constitute one of the great opportunities for a market development for a shopping center. If the owner turns his back on these opportunities, he is shortsighted indeed. . . .

Special events are designed to establish and continually strengthen the shopping center's position as a real community center. They should be programmed so as to appeal over a period of time to the special interests of various individual groups which, in the aggregate, constitute most of the purchasing power. They may or may not have any direct and immediate effect on shopping traffic at the time of the particular event, but the cumulative effect of bringing people to the center at these times is to establish close identification by the public with the center, and thus serve ultimately to increase traffic and business. Many times these special events are not even held at actual shopping hours; and yet they can be important to the center's growth. . . .

As an example of one of these off-hour planned activities, Mr. Rouse points to the symphony concerts held at Mondawmin Center during the summer months, which drew an average of 3,500 people at each performance. They were held at nine o'clock in the evening, just after the stores closed, and in Mr. Rouse's opinion, "constitute one of our most successful promotions." He has also found that Sunday is a good time, in his area, for holding special events.

A similar event is the yearly Symphony Ball, one of the great civic events of the city of Minneapolis, which was held for the first time, in 1958, at the Southdale Shopping Center where it attracted 2,500 guests. This is an instance where a special attribute of the shopping center — Southdale's large covered and air-conditioned garden court — presented an unusual opportunity that was utilized with imagination by the developer under the direction of its executive vice president, William Crear, Jr.

The subject of off-hour activities is one that interests shopping center executives who feel that the park-like, open spaces of major shopping centers may be enjoyed, with profit to both center and shopper, not only during regular shopping hours, but in the evening and on Sundays and holidays as well. During these periods, window shopping is an important activity which benefits the stores on subsequent shopping days. In order to meet this desire of

Hawaiian music at Stonestown Shopping Center, San Francisco. Photograph: Skelton Studios

Display of antique automobiles in Southdale's garden court.

Children's playland on roof of buildings, Stonestown, San Francisco, California. Photograph: Robert Cleveland

suburbanites to use "their" shopping center outside of business hours, most of the larger centers have regulations which oblige tenants to keep their lights on until ten or eleven o'clock at night. In the majority of centers, this regulation also applies to Sundays and holidays. Northland and Eastland report that during favorable weather as many as 2,000 cars are counted in the parking lots on Sundays and holidays.

At Eastland, Detroit, on Monday nights, a stage is erected in the garden court where entertainment is provided in the form of organ concerts, barbershop quartets, etc. The public is urged to bring folding chairs and cushions. Willard Brown states that Evergreen Plaza features square dances, an activity that has also become a feature of Northland, where a series of harvest square dances are held on the terrace.

Malls and courts are often used for special events even in mid-winter. For example, at Mondawmin Center an outdoor ice skating rink is created for public use in the main court. Northland Center treats this same activity in a somewhat different manner, utilizing its geodesic dome, 100 feet in diameter, as the locale for its ice skating rink. This dome, which can be moved from one location to another within the general shopping center site, functions as a public events building. Eastland, on the other hand, has a permanent special events building, in addition to its auditorium and meeting rooms, that is used largely for indoor exhibits and also contains a radio station.

There is much evidence, according to Mr. Rouse, to show that "the existence of a well organized, well patronized community center goes a long way toward cementing good community relations." He goes on to say that in one Baltimore shopping center the community center building is used by civic and church groups for meetings and functions, among which are weddings, birthday parties, dances and indoor exhibitions.

At Evergreen Plaza there is at present a relatively small community center (the rooms now hold no more than 50 people) but, according to Mr. Brown, plans are under way for an auditorium with a capacity of 250 to 300.

An interesting development of the use of the public area, one that has resulted in great prestige for the center in the community at large, is the summer theater. Horace Carpenter, commenting on the success of the summer theater at Northland, which seats 1,400, says:

This has a great deal of influence on shopping center business in the summertime. It has publicized the center and made Northland — even to a higher degree than before — a focal point of the community. It has lured people out of their homes and to Northland Center, even though they were not interested in shopping. This is very important — people learn about Northland and coming there becomes a habit.

Dancing in Eastland Center malls, Detroit. Photograph: Louis Goldenberg

Sports show at Northland Center, Detroit. Note divers on diving board in background.

Northgate Center has a movie theater within its complex. Says James B. Douglas:

> The experience with it has been excellent. The theater tenant is not only a good rent-payer, but has also been extremely important in building traffic for the center.

Among the other events that contribute to the cultural life of the community are the art exhibits and competitions that flourish in many of the shopping centers and are often participated in by local or regional art groups. A good example is the art exhibit held in the Capitol Court Shopping Center in Milwaukee in the summer of 1958, which has been described as the largest art exhibit ever witnessed in the area. It was sponsored by the Milwaukee Art Institute and Wisconsin Painters and Sculptors, and attracted thousands of customers and art enthusiasts. Northland Center arranged an art show in which professional as well as amateur artists were invited to participate, and which included an artists' market. Photographic competitions are held periodically at both Eastland and Northland, under the auspices of the United Camera Clubs of Detroit. Some of the other centers that have successfully promoted art and photographic exhibits are Northgate, Evergreen Plaza, Mondawmin, Southdale.

Flower shows sponsored by local garden clubs are tremendously popular. The children, too, come in for their share of attention in a variety of recreational and educational activities. Southdale, for example, operates a veritable children's paradise in its lower concourse. It features a zoo, various rides and games, and a refreshment center. Northgate runs a *Kiddieland* while Eastland's animal exhibition, under the name of *Animal Land,* attracted 65,000 visitors at Easter time in 1957 and upwards of 200,000 in 1958. Evergreen Plaza sponsors children's events; Mondawmin runs a Foreign Doll Show; and of course there is the inevitable Easter Rabbit (at Mondawmin Center he is 35 feet tall and talks) and Santa Claus that contribute, seasonally, to the enjoyment of the future generation of shoppers.

In the realm of merchandising promotion the fashion show is, of course, a natural event for the shopping center and much imagination and ingenuity have gone into the most successful of these. Don Curtiss of *Redbook* states his belief that fashion shows on the mall, in which all merchants take part, "have a tremendous appeal for fashion-conscious women," and urges that malls and walkways be wide enough and large enough to accommodate activities of this nature. Like Mr. Rouse and many others, he, too, feels that special events, being a unique attribute of shopping centers, set shopping center merchants apart from their counterparts in downtown districts. During fashion shows at Southdale, near Minneapolis, as many as 100

Christmas at Eastland Center, Detroit.
Photograph: Louis Goldenberg

Christmas tree at Northland Center, Detroit.
Photograph: Photograph House, Detroit

models have participated in a single event for which shoe stores, jewelers and hat shops joined with the department stores, women's apparel shops, children's shops and men's stores.

Northland and Eastland, according to Mr. Carpenter, found that their boat shows resulted in a good deal of direct selling. A model home show, during which an actual model house was constructed on the terrace of Northland Center and was furnished, successively, by three different stores, attracted 500,000 people during a period of six months. At Northgate, outdoor space is used for boat shows, home shows, automobile shows, and for many other functions. The only limiting factor, reports Mr. Douglas, is the weather, adding that Northgate averages about ten promotions a year, including Dollar Day, Easter, Spring Festival, Fashion Show, Birthday of the Shopping Center, Summer Festival, Back-To-School, Fall Fashion Festival, Fall Dollar Day and Christmas. Evergreen Plaza holds out-

door exhibits of merchandise on the occasion of their sports shows, fashion shows and automobile shows.

It may be of interest to list the activities and events which took place at one shopping center, Mondawmin, during the first twelve months of its operation.

1. Fashion Show (Outdoor, Fall and Spring).
2. A series of five Symphony Pop Concerts performed by members of the Baltimore Symphony Orchestra on successive Saturday nights during the summer.
3. United Nations Festivol, including exhibits and the appearance of United Nations officials.
4. Outdoor Automobile Show.
5. Ice skating rink in the Mall for six weeks, in February, March and early April.
6. Outdoor Living Show.
7. Automobile Giveaway Show.
8. "County Fair," with rides, etc.
9. Foreign Car Gymkhana.
10. Extensive Christmas celebration, with Santa Claus.
11. Easter decorations, featuring a 35-foot talking Easter Rabbit.
12. Two Flower Shows.
13. Foreign Doll Show.
14. Lucky Key promotion — keys to Treasure Chest distributed to Mondawmin Star recipients (this is the big newspaper of the center) and also distributed to the stores.
15. Armed Forces Week Show with various service bands, weapons exhibits, etc.
16. Amateur Art Show.
17. Charity Bazaar.

Mr. Rouse observes that the most successful of these events were the pop concerts, the lucky key promotion, the skating rink, Christmas and Easter celebrations and the United Nations Festival. During the one-week "lucky key" promotion, 50,000 keys were tried in the treasure chest's lock.

Choral singing in Southdale's Garden Court.
Photograph: Anthony Lane

As we have indicated, some of the larger centers provide indoor community center facilities. Northland and Eastland have auditoriums and meeting rooms which are furnished to various organizations on a rental basis. A prospectus of the Eastland Center community auditorium and meeting room facilities which also contains the outline of a rental agreement, reads as follows:

Lecture in community building.
Manchester Center, Fresno, California.
Photograph: Courtesy Chain Store Age

Welcome to Eastlond. The auditorium and meeting rooms are designed for the use of civic groups and clubs. It is our desire to provide a year around place where you and your friends can get together and hold meetings, ar just to have fun. Our facilities are completely air-conditioned for summer use and heated for winter use and are located in the Eastlond concourse at the foot of the escalator. To enable us to provide the mast service to you, we osk that you fill in the necessary information on the reverse side.

(Signed) Eastland Center, Inc.

Seating capacity: Auditorium 250
Room A, 75
Room B, 35

The outline of the agreement, and the accompanying rate card, are shown below:

The following establishes the rental agreement between Eastland Center, Inc. and the organizatians wishing to rent the Community Center facilities. We ask that yau observe the following rules:

1. Under no condition will alcoholic beverages or gambling be permitted.
2. We cannot be responsible for lost articles. We do not have adequote storage space, so we ask that you take all of your articles with you upon completion of your progrom.
3. Yau will be held responsible for any domage ta the premises. Please da not attach anything to the walls of the raoms without permission.
4. When refreshments are served, regardless of whether or not the kitchen is used, a clean-up charge will be added to the rental charge. We do not provide dishes, cups, silverwore or cooking utensils. An ottendant will help you with the making af coffee, if yau desire. Receptacles are provided for trash and garboge.
5. To enable us to keep on time, please follow the schedule shown belaw.
6. All reservations must be accompanied by 50% deposit which is not refundable for nan-use. The balonce shall be paid prior to room use. Please make checks payable to Eastland Center, Inc.

RATES	NOON	NIGHT	SUNDAY	CLEAN-UP CHARGES
Auditarium	$25.00	$40.00	$40.00	$10.00
Room A	10.00	15.00	15.00	5.00
Room B	7.50	10.00	10.00	5.00

HOURS: Noon or Luncheon—10:00 A.M. to 2:30 P.M.
Night or Dinner—4:30 P.M. ta 11:00 P.M.
Sundays—12:00 P.M. to 7:30 P.M.

To illustrate the kind of usage for which the auditorium and meeting rooms are rented, it may be helpful to quote from a report of Northland Center for three typical days:

February 1Bth: Rotary Club in Roams A, B, and kitchen, luncheon.
Chamber of Commerce, auditorium and kitchen, luncheon.
Southeastern Michigon Tourist Associotion, Room C, class, night use.
Southeastern Association of Landscape and Nursery, Rooms A, B and kitchen, night use.

February 19th: Boy Scout troop, Rooms A and B, meeting, night use.
Leadership training, Room C, meeting, night use.
Art Adventurers, auditorium and kitchen, night use.

February 20th: Hardware Mutual Salesmen's meeting, Rooms A and B, meeting, day use.
Corporate Enterprise, stockmarket counselling, Rooms A and B, class, night use.
United States Coost Guard—Auditorium meeting, night use.
Nation Wide Insurance Co. meeting, Room C, night use.

There is still another activity peculiar to the shopping center which might be called: Services. Since the large shopping center represents, in many respects, a good-sized community, it is required to provide most of the services usually furnished by a municipality. Northland and Eastland, like most other shopping centers, have police forces, about which Mr. Carpenter has this to say:

The function of the police deportment goes far beyond protecting the property. This is really a public relotions department, with policemen being helpful in cases like the following:

When a customer's cor gets stalled on one of the parking lots, the police force helps out. They patrol the parking areas against theft. In 1957, 105 cors were stolen in the Northland area in spite of this patrol. How large a number would hove been stolen without police protection is anybody's guess.

Whenever a car runs out of gasoline—and this happens on an average of once every other day, the police department furnishes gas, with the compliments of the center. This represents a comparatively small expenditure, but the return in good will is tremendous. People in shopping centers seem to have the hobit of losing their children. The police department helps find them . . . The police prevent youngsters from riding bikes on the malls or on the sidewalks ta safeguard an environment which must be safe for shoppers and small children.

In conclusion, we once again quote Mr. Carpenter who has had vast experience in the management of Northland and Eastland Centers.

The arrangement of spacious oreas between the buildings of the shopping core is af tremendous importance. It would be impossible to hold effective public events or promotions if such spaces were not available. Arrangement of such events in parking areas would not be as effective since they would be removed from the actual store portion of the center.

Reports from these and other leading personalities in shopping center management indicate that the planners' hope to establish the major shopping center as the community focal point, as the place in which merchandising, cultural, recreation, sport and civic activities flourish side by side, is being fulfilled.

EPILOGUE

THE FUTURE OF SHOPPING CENTERS

Influence of the shopping center planning concept in other fields and on downtown areas.

EPILOGUE

The Future of Shopping Centers

Though the phenomenal advances made in the planning of shopping centers since their early days seem impressive, it can be safely stated that this is just the beginning of the potential development of this building type. Barring the possibility of a man-made or natural catastrophe, more and increasingly better centers will be built, as foreshadowed in present plans and thinking.

Forecasts estimate a population growth in the United States of between 50,000,000 and 60,000,000 within the next twenty years. Inasmuch as the rural population is expected to remain fairly stable, nearly all of this growth will take place within metropolitan areas. The automobile population, it is estimated, will reach 81,000,000 by 1965. The United States national income in 1956 was $343,620,000,000, according to statistics from the United States Department of Commerce. It is estimated that by 1960 it will rise to $400,000,000,000.

Obviously this phenomenal growth will lead to the building of new communities and the expansion of existing ones. New opportunities will open up for the development of shopping centers of all sizes.

The growth of the automobile population will occur as more families own two automobiles or more. In 1941 only 2% of the families in the United States had two cars; in 1955 it was 8% and it is expected that as early as 1960, 13% of all families will own two automobiles. The number of one car families will also increase. The next fifteen years will see the implementation of a proposed gigantic Federal highway program and it can be expected that the Federal Urban Renewal and Redevelopment program will continue at stepped-up intensity.

Technological developments, especially the use of atomic power for peaceful purposes and the automation of factories, will bring about a shorter work week, and thus create more leisure time. These are all strong influencing factors which, if properly considered in planning and design, can have positive influence on suburban shopping center development.

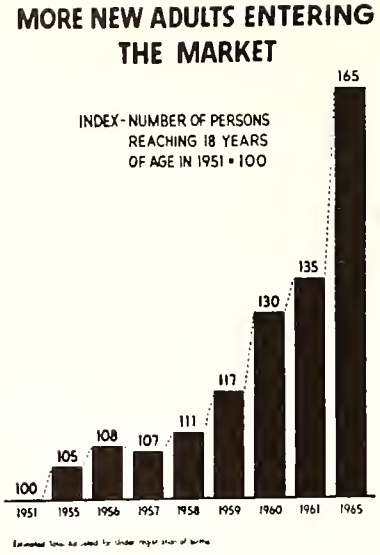
The shorter work week and work day will result not only in more leisure time for the individual, but in more shopping time for the family as a unit. Larger family income will mean larger buying potential, and a greater interest in higher quality merchandise. With greater leisure and additional mobility, new categories of weekday customers for the suburban shopping center will emerge.

The shopping center which can do more than fulfill practical shopping needs, the one that will afford an opportunity for cultural, social, civic and recreational activities will reap the greatest benefits.

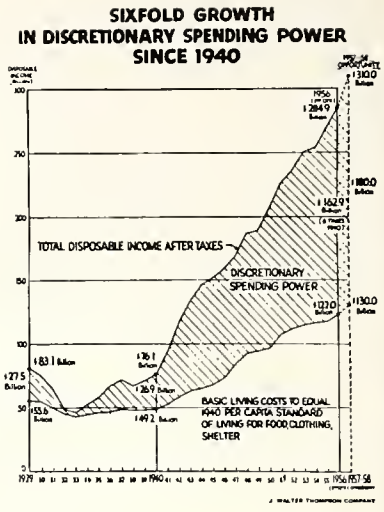
New highways and freeways will bring about a reorganization and reorientation of metropolitan traffic patterns. Fresh opportunities will open up for the locating of shopping centers. With the shifting patterns, it is likely that while certain existing shopping centers will gain through better accessibility, others may suffer. By the same token some downtown business areas will become more accessible and will, if advantage is taken intelligently of the given opportunity, offer strong competition to suburban shopping centers.

The government-supported Urban Renewal and Redevelopment program offers potentialities for the comeback of downtown areas. Whether this potential will be utilized depends on the wisdom with which it is implemented.

It is apparent that many forces are at work which will



Tabulation of adult population in the United States of America.
Courtesy J. Walter Thompson Co.


SIXFOLD GROWTH IN DISCRETIONARY SPENDING POWER SINCE 1940
TOTAL DISPOSABLE INCOME AFTER TAXES
DISCRETIONARY SPENDING POWER
BASIC LIVING COSTS TO EQUAL 1940 PER CAPITA STANDARD OF LIVING FOR FOOD CLOTHING, SHELTER

Tabulation of spending power in the United States of America since 1940.
From Proceedings of Second Annual Convention of the International Council of Shopping Centers.

U. S. Population in 1965 . . . If

1. Present level of fertility continues.
   Projection: 42 million births by 1965.
   1965 population: 193.4 million.
2. Fertility rates observed in 1950-53 continues.
   Projection: 39 million births.
   1965 population: 190.3 million.
3. Between now and 1965 fertility rates drop regularly from the 1950-53 level to roughly the prewar level.
   Projection: 35 million births.
   1965 population: 186.3 million.

These figures are not forecasts; they are simply projections based on the three assumptions of what might happen. Recent population projections have been too low. The population, by age groups, shown in this table is based on three possibilities open to Mr. and Mrs. U. S. Citizen.

Age	1950 Census	1955 (July)	42 million births by '65	39 million births by '65	35 million births by '65	Percent change 1955-65
	(000)	(000)	(000)	(000)	(000)	
Total	151,677	165,248	193,346	190,296	186,291	—
Under 5	16,312	18,307	20,413	18,881	16,265	—
5-9	13,300	17,148	20,252	18,734	17,345	—
10-14	11,144	13,340		19,152		43.6
15-19	10,680	11,186		17,199		53.8
20-24	11,621	10,766		13,461		25.0
25-44	45,495	46,945		46,373		−1.2
45-64	30,761	33,429		39,125		17.0
65 and over	12,364	14,127		17,371		23.0

Tabulation of population in the United States of America in 1950, 1955 and 1965.
Courtesy Sales Management Magazine

Charles River Park Urban Redevelopment Project, Boston, Mass.
Architects: Victor Gruen Associates. Photograph: Gordon Sommers

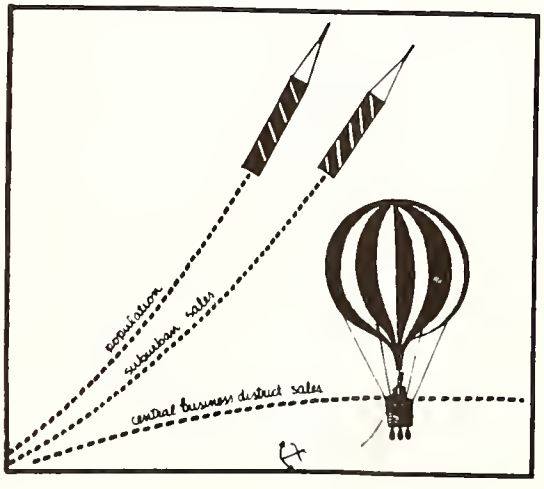
favorably shape the future of the suburban shopping center. Some of these forces may be helpful to the downtown areas as well; all of them tend to bring about more intense competition among all types of shopping facilities. Therefore, only if accompanied by a steady improvement in quality of planning, design and construction will these new forces spell continuing success for the shopping center.

The future will see advances in planning and design along many lines. The residual features which shopping centers still retain from the design of the conventional highway store will eventually wither away. The pedestrian area will gain in importance as the main shopping area, while entrances and show windows directed toward parking areas may gradually disappear. The smaller shopping center — neighborhood and intermediate — following the lead of the regional center, will separate mechanized traffic from foot traffic and establish protected pedestrian areas.

The shopper, the tenant, the developer and the financial institution will all become increasingly knowledgeable and expert as time goes on. Each, for individual reasons, will demand more shopping convenience, a more enjoyable atmosphere, better construction. As a result of increasing op-

The pedestrian area will gain in importance as a main shopping area, while entrances and show windows directed toward parking areas may gradually disappear. This is exemplified in the pedestrian area of the projected Winrock Center, Albuquerque, New Mexico.
Architects: Victor Gruen Associates. Photograph: Gordon Sommers

Central business district sales do not keep pace either with population or metropolitan sales.



portunities to work together, planners, architects, engineers, and artists will achieve greater integration of architecture, landscape and art.

Developers, architects, economists, and real estate brokers and managers will use the experience and expert knowledge gained through their involvement in shopping centers in new, though related, fields. Cluster type developments of regional health centers, research centers, light industry centers, home outfitting centers, will emerge. This forward planning step is illustrated by projects now on drafting boards, and by some actually in construction.

The concept behind these plans, following closely those of shopping centers, provides for strict separation of automobile, service and foot traffic; for traffic distribution by ring roads; for landscaped pedestrian areas; for buffer areas between the center and surrounding areas; and for supplementing the main functions to which each center is devoted

by complementary commercial, social and leisure time facilities.

So far as central business districts are concerned, the feeling is constantly growing that something must be done to revitalize them. The dissatisfaction of merchants and the concern of Federal and city governments and business leaders have undoubtedly been triggered, at least in part, by the success of suburban shopping centers. Downtown deterioration is blamed on different factors, as demonstrated by a polling of the members of the National Retail Merchants Association. The results showed that 81.3% believe the principal reason for downtown's trouble to be lack of parking; 78.6% attribute it to traffic congestion; 38.2% to antiquated buildings; 30.6% to poor public transportation systems; 27.3% to poor retail promotion; and 16.4% to the existence of slums around the downtown district.

These criticisms are all essentially valid but they must be regarded in their entirety. Attempts by many cities to cure one or another of these problems without regard to the rest, have invariably failed. The construction of a parking garage here and there, spot rehabilitation of slums, the building of freeways and attempts in any of the other directions, when undertaken without guidance of an over-all master plan, have generally proven costly and worthless in the long run. The real need is for an improvement of the entire environmental quality of the urban core and an integrated attack on all problems.

So long as people deliberately avoid the downtown district, the core area will continue to deteriorate. Los Angeles is an extreme example of this condition. R. L. Duffus, writing in the New York Times magazine section, observes that "Los Angeles has a neighborhood called downtown, but there is no center—no area in which people by common consent congregate in their lighter moments."

The solution calls for an understanding of what people need and want in their daily lives, but as Edgardo Contini, speaking at the Aspen Design Conference in 1955, stated, "not being manufacturable, environment has seldom been the subject of organized interest."

Nevertheless, it is safe to assume that within the next twenty years the importance of environmental planning for downtown will receive greater recognition and understanding from those who are in a position to act, and that out of the present despair will be born the will and the wherewithal to accomplish the reshaping of our city cores.

The lessons learned and the experience gained in the planning of regional shopping centers will contribute immeasurably to the successful carrying out of this task. This can already be seen in the number of projects* currently envisioned or already in work. The project for the Midtown Plaza in Rochester, New York applies the covered mall concept to a portion of a central business district. Charles

*The architects for these projects are Victor Gruen Associates for the projects in Rochester, Fort Worth, St. Paul, Kalamazoo, and Fresno; Rogers, Taliaferro & Lamb for the project in Baltimore; Mitchell and Ritchey for the project in Pittsburgh; and I. M. Pei for the project in Denver.

Model of Midtown Plaza Project in the heart of the downtown area of Rochester, New York. Architects: Victor Gruen Associates. Photograph: Gordon Sommers

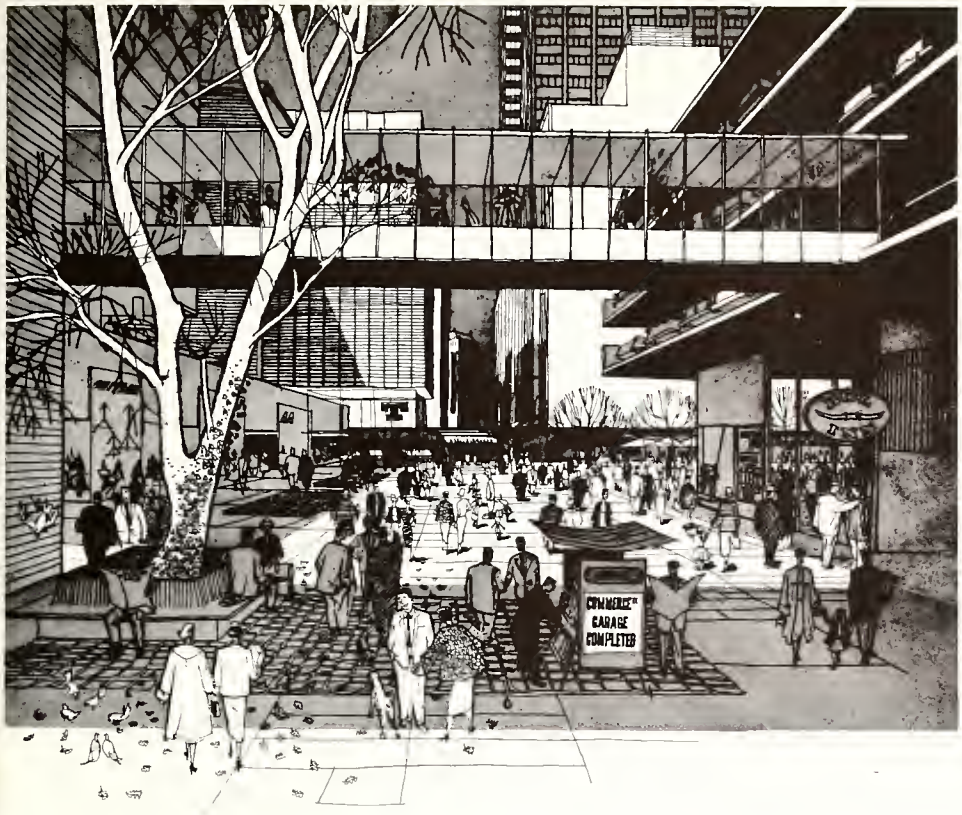
Center in downtown Baltimore, Mellon Square in Pittsburgh, Mile High Center in Denver and others represent new cluster formations within existing downtown areas. Master plans for revitalization of the cities of Fort Worth, Texas; St. Paul, Minnesota; Kalamazoo, Michigan; Fresno, California, and many others envisage traffic separation, creation of lively pedestrian areas and methods for accessibility as exemplified in the suburban shopping center, translating these concepts into the urban vernacular.

An excellent existing example of a new downtown pedestrian environment is in the Lijnbaan in the rebuilt core of Rotterdam, Holland. Located in the immediate vicinity of the City Hall, and surrounded by high-rise apartment buildings, sixty-six quality stores and a major department store are arranged on both sides of a broad landscaped mall, reminiscent in design of American regional shopping centers. This specific example, like the new shopping district in Coventry, England, was built as a result of total demolition by bombing during World War II. Let us hope that the destruction of a city is not required in order to reshape our downtown areas into a livable and enjoyable urban environment.

Considering the entire field of retailing, each form of shopping facility—the neighborhood center, district center, regional center and central business district—has its own particular and distinctive role, and all of them can flourish simultaneously. The result of such healthy competition will be a raising of quality not only in the design of shopping facilities, but in urban and suburban environment as a whole.

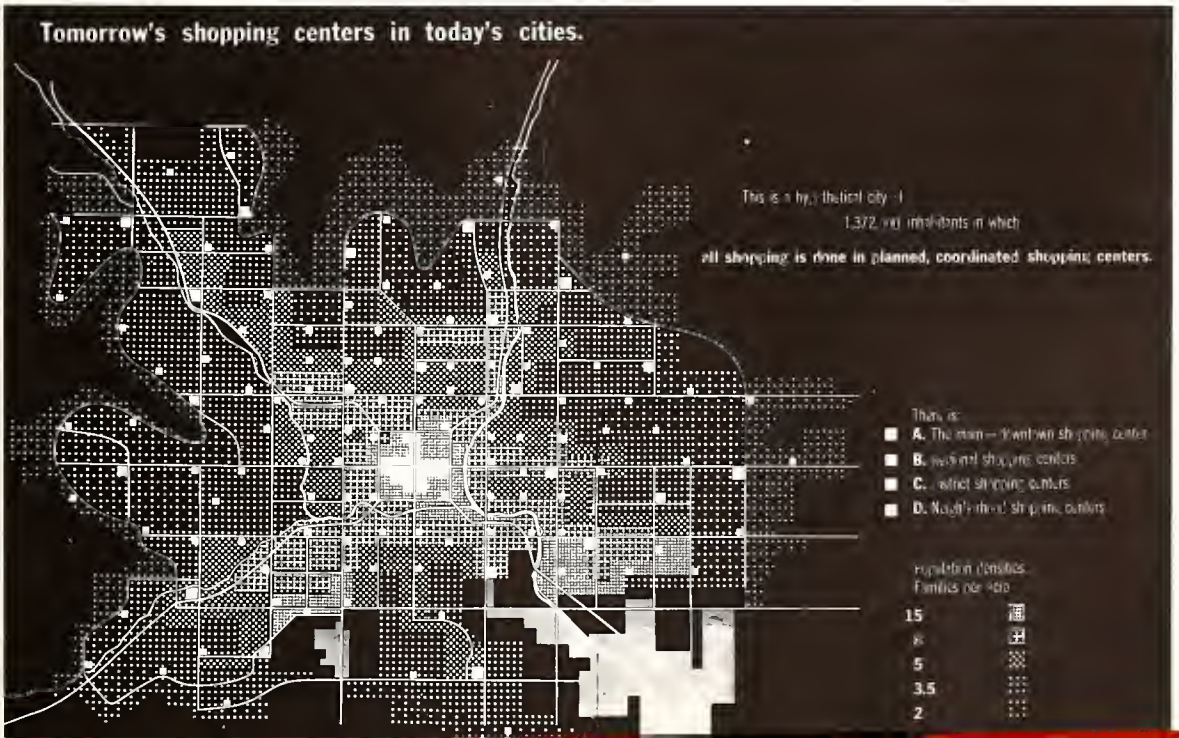
The revitalization plan for the City of Fort Worth, Texas. Bird's-eye view of redeveloped downtown area.
Architects: Victor Gruen Associates. Photograph: Gordon Sommers

Covered mall in the Midtown Plaza Project, Rochester, New York, in planning stage.
Architects: Victor Gruen Associates. Photograph: Gordon Sommers



The revitalization plan for the downtown area of the City of Fort Worth, Texas. View of pedestrian mall adjoining multi-deck garage.
Architects: Victor Gruen Associates
Photograph: Gordon Sommers

Hypothetical map of shopping center distribution in a city of 1,372,000 inhabitants.



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APPENDIX

Glossary

Anchor Tenants — See Key or Principal Tenants

Allowance System
A method whereby the landlord installs standard store fronts, heating equipment, floors, walls and ceilings or pays the tenant a sum of money equivalent to the cost of such standard finishing. The cost in excess of this amount would be paid by the tenant.

Assignment
The method of transferring the rights and/or obligations of one party in a real estate transaction to another party. In leasing, this relates to the transfer of the lessee's rights and obligations for the entire period of the lease.

Capitalization Rates
The rate of return necessitated by risk and other factors that would justify a given type of investment. The result of dividing the net income by this rate of return is the capitalized value of a given project.

Capitalized Value
The computed present value of the right to collect future net income. It is determined by dividing the net income by a rate of return (capitalization rate).

Common Areas
All that area within a shopping center that is not designed for rental to tenants and which is available for the common use of all tenants or groups of tenants.

Compartmentalization
Grouping of stores in a shopping center into clusters of the same or similar types of establishments.

Economic Value
The present value, in dollars, of a given investment.

Equity Financing
The portion of the total cost of an investment which is supplied by the owners.

Fringe Property
The property surrounding a shopping center. The value of this property may well increase rapidly in the future as the shopping center may attract other intensive land uses such as office buildings, hotels, etc.

Full Operating Level
The level of sales expected after the center has become well established and accepted in the trade area.

Gaf
General merchandise, apparel, and furniture and appliance store types.

Gross Floor (or building) Area
Total floor area of all buildings in the project, including basement and upper floors. This figure should be the basis for quoting building costs.

Guaranteed Rent
The minimum rent from the premises guaranteed by the tenant irrespective of the level of sales.

Impulse Buying
The purchase of goods other than those previously decided upon.

Intermediate Shopping Center
The intermediate shopping center is generally designed to serve a trade area population of from 40,000 to 150,000. The total area of a center of this type is typically between 100,000 and 250,000 sq. ft. This type of center creates some comparison shopping facilities as well as a complete selection of convenience facilities, but it does not have the strength of the regional center nor is its major tenant a *full-line* department store. A principal difference between the intermediate and regional center is the size and character of the major tenant. In the intermediate development the major tenant is normally a junior department store or a *strong* specialty store. Usually this tenant will occupy an area of from 25,000 to 75,000 sq. ft. and will restrict its merchandise to the soft lines, i.e., apparel, dry goods, etc., with little or no furniture and other typical hard lines which the full-line department store does provide.

Key (principal) Tenant
The key or principal tenant — department store, junior depart-

ment store or supermarket depending upon the size of the development — is the primary traffic generator which attracts customers to the shopping center. While it is possible for a center to operate without such a tenant, the realization of a maximum return on the investment requires the presence of such a major tenant.

KIOSK
A very small, free standing building used for sale of such items as newspapers, candy, etc. usually located in the central mall.

MERCHANDISING PLAN
The arrangement of all stores in specific locations according to the plan of the shopping center.

MORTGAGEE
The party, usually an insurance company or other financial institution, that makes a loan secured by real property in accordance with stipulations of a mortgage.

MORTGAGOR
The one who borrows money from a mortgagee and uses his property as security for the debt.

MULTIPLE TENANT BUILDINGS
Buildings designed for use of more than one tenant.

NEIGHBORHOOD SHOPPING CENTER
The neighborhood shopping center is generally designed to serve a trade area population of from 5,000 to 40,000. Its principal function is to provide convenience shopping facilities and the principal tenant is normally a major supermarket. The size of this type of development may vary from 30,000 sq. ft. to as much as 100,000 sq. ft.

NON-CONFORMING USES
Uses contrary to the regulations for a particular district in which they are located. These uses are typically existent when the zoning ordinance is adopted.

PERCENTAGE RENT
Rent based on a given percentage of gross sales of an establishment.

REGIONAL SHOPPING CENTER
A regional shopping center is generally designed to serve a trade area population of from 150,000 to 400,000 people. The size of this type of center may range from 300,000 sq. ft. to over 1,000,000 sq. ft. Department stores are the dominant tenants, and normally occupy about one-third to one-half of the total area. The function of such a center is to create complete comparison shopping facilities with a strong attraction for customers living as much as 10 to 15 miles from the site, depending, of course, upon existing competitive facilities, access routes, etc.

RENTABLE AREA
That part of the gross area within buildings which is used exclusively by individual tenants and upon which rental can be obtained.

SALES (SELLING) AREA
Rentable area minus storage space.

SALES POTENTIAL
The volume of sales expected for stores at a given location under normal competitive conditions and usually after a few years of operation when the center has become well established and accepted in the trade area.

SINGLE TENANCY
The occupancy of a building by a single tenant rather than several tenants.

SITE IMPROVEMENTS
Buildings, paving of parking lot, and other fixed additions or improvements of the buildable site.

STANDBY CHARGE
A fixed periodic charge to the tenant to amortize (with interest) the landlord's investment in the installation of air conditioning equipment (and sometimes heating).

STRIP DEVELOPMENT
The arrangement of stores in a straight line usually along a thoroughfare.

SUBLETTING
The transfer of the lessee's rights under a lease for a part of the term of the lease.

SUBORDINATION
Agreement to submit property rights pertaining to land as a guarantee for a mortgage.

SUBURBAN SHARE
The suburban share of total retail expenditures refers to that portion of those expenditures which would be made in suburban, e.g., non-downtown stores, providing adequate suburban shopping facilities are available. The determination of suburban share depends upon the distance of the area from a major downtown shopping district, the presence of other suburban stores within the area, existing shopping habits, store preference, etc.

TENANCY
The holding of certain rights to occupancy of given premises for a stipulated time, usually in accordance with a lease.

TRADE AREA
The area of influence from which a shopping center could expect to derive as much as 85% of its total sales volume is defined here as the trade area of the center. This area is delimited by various factors which include driving time; topography; natural and man-made barriers such as coast lines, rivers, swamps, highways and railroad tracks; and the existence of strong competitive facilities. The primary trade area is the area of strongest influence, normally three to six miles from the site. The secondary and tertiary areas are those of lesser influence.

TRAFFIC GENERATORS
The stores such as the department store, large apparel stores, etc. in a regional center and a supermarket in a neighborhood center that attract customers to the shopping center.

TRAFFIC USERS
The stores in a shopping center whose business is dependent upon the traffic generated by the larger stores.

VARIANCE (ZONING)
Permission granted to the owners of a specific property for establishing a use not consistent with the zoning of the district. Variance is usually granted where unusual circumstances lead to unnecessary hardship for a particular property owner.

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